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ABSTRACT

The study examined 17 Child Service Demonstration Centers (CSDC) established by the Bureau of Education for the Handicapped to develop and disseminate model projects for children with specific learning disabilities (LD). Federal guidelines specified that these projects should include the following components: developmental program planning, operation, and evaluation; demonstration of diagnostic/prescriptive services to children; coordination with other agencies; Advisory Council participation; parent involvement; replication; and dissemination. Determined in this study were the effectiveness of individual centers in reaching self-set, program-relevant goals and the extent to which the major program components have been addressed across the Learning Disabilities Program. Among findings were that there was little uniformity in the 17 centers; that the two or three prime objectives differed in that 12 of the centers emphasized development of effective procedures for identifying and meeting the needs of LD children, 11 emphasized training of teachers in the use of model techniques, and 10 emphasized the dissemination of information about the nature of the CSDC program; that varying numbers and types of tests were being used; and that parents were not highly involved in the center activities. Recommendations included the development of consensus criteria to guide CSDCs in the choice of tests and interpretation of results; the revision of the federal definition of LD; and the review of requirements for parent involvement, Advisory Council participation, dissemination, and replication. (IM)

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A Study of Special Programs for Children With Specific Learning Disabilities

OE Contract No. 300-76-0059

Final Report

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I. ABSTRACT

Objectives of the Study

The Bureau of Education for the Handicapped (BEH) has established a number of Child Service Demonstration Centers (CSDCs) to develop and disseminate model projects for children with specific learning disabilities. The federal guidelines specify that these projects should include the following components: developmental program planning, operation, and evaluation; demonstration of diagnostic/prescriptive services to children; coordination with other agencies; Advisory Council participation; parent involvement; replication; and dissemination.

The present study examined 17 of these centers in 15 states to determine (a) the effectiveness of individual centers in reaching self-set, program-relevant goals and (b) the extent to which the major program components have been addressed across the Learning Disabilities Program.

Design of the Study

The research approach involved the following steps: (a) criteria for documentation of center programs were cooperatively arrived at by AIR, a national panel of learning disabilities consultants, and BEH program personnel; (b) interview guides and questionnaires were developed for use with CSDC staff, parents, Advisory Council members, and persons receiving dissemination information; (c) information was collected during one-week visits at each site, supplemented by extensive study of project reports, proposals, and other documents; (d) data were analyzed and reported in a cross-program analysis and in case studies of the 17 projects.

The samples included in the analysis were 17 centers in their second year of contract funding in 1975-76, 133 student records, 112 parents, 76 Advisory Council members, and 199 persons identified as recipients of dissemination information.

Analysis and reporting were carried out at two levels. At one level, case studies were written describing the contexts of the CSDCs, funding and staffing patterns of the CSDCs, their goals and objectives, their services to students, other CSDC activities, and discussion. At the second level, cross-center analyses of data concerning the various program components were carried out in an attempt to answer two prime questions. These were (1) to what extent are children served by the CSDCs diagnosed as learning disabled, according to the federal definition, and what is the relationship of diagnosis to the provision of educational services; and (2) to what extent have CSDCs stimulated state and local services to learning disabled children?

Findings

Little uniformity was found to exist in the 17 centers in terms of their project scope, organizational base, goals, diagnostic/prescriptive child services, and dissemination/replication strategies.

In assessing the prime two or three objectives of each center, it was found that 12 of the centers were emphasizing the development of effective procedures for identifying and meeting the needs of learning disabled children, 11 were emphasizing training of teachers in the use of model techniques, and 10 were emphasizing the dissemination of information about the nature of the CSDC program. No center relied solely on federal Title VI-G funds, and in larger centers more than half the funding was from other sources. In general, there was a high level of local and/or state support for the individual centers.

Varying numbers and types of tests were being used by the centers for exclusionary screening purposes and for diagnosis of particular learning disabilities. In general, intelligence tests and achievement tests were the most widely used instruments and were examined for discrepancies between the child's actual and expected grade placement. Educational programming was individualized and prescriptive in nature. Educational services were being implemented in the regular classroom and resource rooms; instruction was being provided by regular, itinerant, and resource teachers.

While parents were found to be supportive of the projects in terms of positive effects on their children, parents were not highly involved in the activities, nor were they consistently receiving training across the centers.

Advisory Councils were found to be serving important functions in most centers but were little used or nonexistent at other centers.

Dissemination efforts were targeted largely at educators, and the information being disseminated generally seemed to satisfy the interest of those persons receiving the information.

Full replication of the CSDC services had happened only in about half of the CSDCs. The centers generally felt that replication was best undertaken after several years of experience in developing a model diagnostic/prescriptive approach.

Conclusions

Relative to the two prime questions, it would appear that 1) the CSDCs have made good progress toward devising child-centered learning disabilities programs which emphasize individualized diagnosis and programming and 2) have made serious efforts to carry out their mandate to stimulate other state and local services to learning disabled children, especially when one bears in mind the many and complex activities the limited staffs of the centers were expected to carry out.

Recommendations

It was recommended that:

- Consensus criteria be developed to guide CSDCs in the choice of tests and interpretation of results.
- The federal definition of learning disabilities be revised and made more meaningful to educators who apply the definition in the field.
- Recordkeeping in the CSDCs be made more uniform and systematic.
- The requirements for parent involvement, Advisory Council participation, dissemination, and replication should be reviewed and modified to reflect the stage of development of the CSDC or to allow local option and priorities.
- State and local support should be demonstrated as a condition of funding.
- Better communication should be established between BEH and CSDCs.
- Applied research should be undertaken to evaluate the comparative effectiveness of alternative instructional strategies for learning disabilities.

TABLE OF CONTENTS

Abstract

Page

I. Introduction 1
  A. Overview of Learning Disabilities Issues 2
  B. The American Institutes for Research Study 7

II. Methods

  A. Identification of Program Characteristics of Interest 11
  B. Instrument Development 14
  C. Study Samples 16
  D. Data Collection 19
  E. Analysis 21
  F. Study Assumptions and Limitations 24

III. Results of Cross-Program Analysis 25
  A. Overview, Context, and Staffing of CSDCs 25
  B. Diagnostic/Prescriptive Procedures 46
  C. Coordination With Other Agencies 70
  D. Dissemination Strategies and Activities 82
  E. Replication Strategies and Activities 92
  F. Parent Involvement 98
  G. Advisory Council Participation 108

IV. Discussion and Conclusions. 117
  A. Services to Students 117
  B. Other Program Goals 122

V. Recommendations 129

VI. Addendum 133

References 137

LIST OF FIGURES

Figure   Page

1 Types of Demographic Areas Served 26
2 Grade Levels Served by CSDCs. 27

LIST OF TABLES

Table   Page

1 Grade Levels of Students in Sample. 28
2 Number of Students Served in 1975-76. 30
3 Ethnic Characteristics of Students Served by CSDCs. 34
4 Relative Emphasis of CSDCs in Terms of Their Major Documented Activities 35
5 Number of CSDCs Addressing Major Program Components in FY 74 and FY 75 Proposals 36
6 Level and Sources of Financial Support for the 17 CSDCs . . 38
7 Number of CSDCs Reporting Indirect Support from Other Agencies. 39
8 CSDC Priority at Local Level. 40
9 Numbers of Full- and Part-Time Staff Reported by CSDCs. . . 42
10 Professional Training of Staff in the 17 CSDCs. 43
11 Relevant Experience of Staff in the 17 CSDCs. 44
12 Types of Persons Receiving Training Through CSDCs 45
13 Percentage of Students in the Sample Who Were Tested or Screened in Each of the Exclusionary Categories 49
14 Test Patterns for All Students in Sample. 50-51
15 Percentage of Students Tested Who Were Identified as Having Some Type of Disabling Condition or Impairment Covered by the Exclusionary Categories. 53
16 Distribution of Intelligence Scores for Sample Students in CSDCs. 54
17 Achievement Test Results. 55
18 Percentage of Sample Students Receiving Diagnostic Tests and Considered to Have Deficits 56

Table Page

19 Presence of Important Characteristics of Educational Programming in Records of Sample Students . . . 63

20 Percentage of Records Reflecting Evidence of Assessment of Student Progress . . . 65

21 Numbers of Records Reflecting Evaluation and Revision of Educational Plans . . . 66

22 Frequency With Which Individuals or Teams are Involved in Referral, Assessment, and Educational Programming Decisions as Indicated by Student Records . . . 67

23 Percent of Cases in Which Different Professional Groups Were Involved in Student Referral, Assessment, and Educational Programming . . . 68

24 Extent to Which Parents are Involved in Referral, Assessment, and Educational Programming, as Indicated by Student Records . . . 69

25 Number of CSDCs Reporting Various Degrees of Interaction with Other Agencies . . . 72

26 Assistance Received by CSDCs from Federal or National Agencies . . . 73-74

27 Assistance Received by CSDCs from State Agencies . . . 75

28 Assistance Received by CSDCs from Local Agencies . . . 76

29 Assistance Received by CSDCs from Local Service Groups . . . 77-78

30 Assistance Received by CSDCs from Other Delivery Systems . . . 79

31 Number of CSDCs Selecting Each of Six Target Groups as Important for Dissemination . . . 84

32 Number of CSDCs Disseminating Each Type of Information to the Various Target Groups . . . 85

33 Dissemination Media or Methods Reported by CSDCs . . . 86

34 Needs Cited by CSDCs for Improved Dissemination . . . 87

35 Dissemination Questionnaire Return Rates . . . 88

36 Number of Persons Receiving Information from the CSDCs in Various Ways . . . 90

37 Types of Information Received by Dissemination Target Groups 91

38 Agencies Initiating the Replication Process . . . 95

39 CSDC Services Offered to Replication Sites . . . 96

40 Resources Needed for More Effective Replication . . . 97

41 Major Obstacles to Replication . . . 98

42 Percentage of Parents Indicating Awareness of Learning Problem and of Educational Programming . . . 100

Table Page

43 Parent Involvement with Children's Instruction. 101

44 Level of Understanding of Child's Problem by Parents . . . 102

45 Number of Parents Involved with Project-Initiated Activities. 103

46 Summary of Parents' Perceptions of Children's Attitudes about Projects. 105

47 Summary of Changes in Children Noticed by Parents 105

48 Summary of Project Strengths as Perceived by Parents. . . . 106

49 Summary of Areas for Improvement as Perceived by Parents. . 106

50 Advisory Council Membership 109

51 Activities Engaged in by Advisory Council Members 111

52 Community Acceptance of the CSDC as Seen by Advisory Council Members 113

53 Ratings of CSDC Components by Advisory Council Members. . . 114

54 Intercorrelations of Weighted Sums, Showing Agreement of Program Component Ratings by Each Type of Respondent . . 115

55 Consistency of Response on Two Items Related to Advisory Council Participation. 116

I. INTRODUCTION

In 1970, with passage of Title VI-G of Public Law 91-230, the Bureau of Education for the Handicapped (BEH) was authorized by Congress to establish programs and services that would improve educational services for children with specific learning disabilities. Funds were made available to state and local education agencies, institutions of higher education, and a variety of public and private nonprofit agencies. These funds were to be used for establishing and operating model centers which would be expected to stimulate, through the application of federal funds, state and local efforts in identifying learning disabled children and providing diagnostic and prescriptive educational services to them.

During fiscal year 1971, the program received an initial appropriation of $1 million which was used to support eight centers. By fiscal year 1976, the appropriation had grown to $4.25 million, providing support to one technical assistance project and 29 model demonstration centers in 27 states and Puerto Rico. The eventual goal is to establish projects, now known as Child Service Demonstration Centers (CSDCs), in each of the 50 states.

In December 1975, the Bureau of Education for the Handicapped awarded a contract to the American Institutes for Research (AIR) to carry out the work described in this report. The purpose of the one-year study was to provide information that would assist in determining the effectiveness of the Learning Disabilities Program to date and in providing information useful in the planning of future activities in the area of learning disabilities.

Specifically, the two major purposes of the study were (a) to document on a case study basis the activities of all 15* states having Child Service Demonstration Centers in their second year of contract funding in 1975-76, and (b) to explore the overall impact of these centers in helping to provide improved services for learning disabled children.

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* Seventeen centers were eventually documented. See page 7.

The results of this investigation, which involved a study of documents from each project and a one-week visit to each of the 15 states, are reported in two sections: the cross-program analysis of major center characteristics contained in this volume and brief descriptions of the objectives and activities of individual projects contained in the separate appendix volume.

There are a number of issues arising from the newness of the field of learning disabilities and the nature of the problem that have shaped and, in some ways, limited the results of this study. For example, the lack of standard criteria for identifying the learning disabled child and for assessing outcomes has precluded a rigorous evaluation of the diagnostic and prescriptive services being provided by individual projects. AIR's approach has been to describe the contexts of the projects and the services they provide and to assess in a general way the extent to which the centers in the sample have met the intent of the federal guidelines. As prelude to the report, the following section describes briefly some of the unresolved issues related to learning disabilities which added complexity to the evaluative aspects of this study.

A. Overview of Learning Disabilities Issues

Definition. Although classrooms have always had "problem" students--the slow or lazy learner, the "acting out" child, the child who doesn't listen or won't follow directions--it has been only recently that many of these children have been recognized as having special processing or perceptual difficulties. The term "learning disabilities" was not created until 1963, when Samuel Kirk chose it as a way of describing children with disorders in language development, speech, reading, and associated communication skills. Although the term was later defined by nine unquestioned leaders in the field--Barsch, Beall, Cruickshank, Frostig, Gelman, Kephart, Kirk, Lehtinen, and Myklebust, it represents a compromise of their divergent views about the nature of learning disabilities (Hallahan and Cruickshank, 1973). The resultant definition is long and complex, partially stated in negative terms, and one which can be variously interpreted in the field.* This definition, which has been adopted by the Bureau of Education for the Handicapped as the basis for providing services under the Learning Disabilities Program, states that learning disabled children are

> "those children who have a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Such disorders include such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental disadvantage."

This definition, reflecting as it does both a behavioral and an etiological approach, is a controversial topic among educators, administrators, and theorists. At the point where teachers are serving students, however, it appears to be largely an academic issue and one which has little impact on educational strategy. Most of the states do use the federal definition, or slight variations of it, in defining eligibility for entrance to a CSDC project. Other states subsume the term "learning disabilities" under a broader classification, such as "educationally handicapped" as in California. At least one state, Vermont, does not define learning disabilities at all. Regardless of the definition used by the state, however, students for the most part are being identified and served by the centers on the basis of educationally relevant factors: i.e., they are nearly always defined as students falling within the normal range of intelligence who are underachieving in one or more subject matter areas. The diagnostic processes which then are used to pinpoint the learning problem and to prescribe remedial measures are considered to be tools for achieving educational objectives. In short, teachers and administrators in the CSDCs do not define learning disabilities in such terms as minimal brain dysfunction, dyslexia, or central processing dysfunction; they speak, rather, of students with specific learning problems. This orientation on the part of educators proved to have implications for this study in the assessment of whether or not students in the projects were in fact learning disabled according to the federal definition. This issue is explored in more detail in Section III-B.

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* The Bureau of Education for the Handicapped has funded a current study of definitions in Special Education. Hopefully, this effort will lead to a more precise and educationally relevant definition.

Trend toward mainstreaming. Another issue, closely related to the matter of definition, arises from the trend away from categories and labeling of students within special education. This trend is reflected in noncategorical programs (e.g., Vermont) and the integration that is implicit in the mainstreaming of handicapped children under Public Law 94-142, the Education for All Handicapped Children Act. The commitment to mainstreaming, which was found to exist in nearly every state in this study, is variously interpreted across projects. In some cases, special education students were being mainstreamed only in such regular nonacademic classes as physical education, art, or music. In other cases, special education students were being integrated in regular classrooms in such a way that they were not labeled or otherwise set apart from other students. Most often, projects were providing services to learning disabled students (a) in a resource room, (b) from an itinerant teacher, or (c) from the regular teacher with the help of the itinerant or resource teacher, according to the severity of the problem. As a result, the extent to which this study could address the effects of the program on individual students was limited, not only by differences between and within projects but by the mainstreaming trend in general.

Appropriate identification. The concern that all children should be served in accordance with their needs and ability levels runs counter to existing limitations on how many students may qualify as being learning disabled. Currently, no more than 2% of the school population may be served with federal funds. In view of these critical limits it is important that students be correctly classified as learning disabled. Kirk and Elkins (1974) have pointed out that a number of children being served (and counted as learning disabled students) may not be actually learning disabled but simply underachievers.

This leads to the issue of screening, diagnosis, and prescription. That this remains a serious problem is mentioned in a recent Education service delivery systems. Thus, in one state the "center" consisted of two professional staff members with offices in the State Department of Education, who provided technical assistance and administrative guidance to 13 districts on an itinerant basis. In another state, the "center" was a network of five local school districts dispersed throughout the state which were implementing a common instructional strategy using special instructional materials. Another "center" consisted of a van which visited rural areas, a central location where monthly workshops were held for teachers, and replication sites which received training and technical assistance from the CSDC staff. In some instances, the centers were teacher training facilities, with little or no direct contact with learning disabled students.

The relationship of CSDCs to local and state education agencies also varied greatly across the sample in this study. Some were administered and closely monitored by state departments of special education; some were affiliated with universities; some with local or county school districts; and one was administered through a private nonprofit organization. It should be emphasized that this study is thus based on descriptive data about diverse projects which vary in terms of their age, their administration, their context, and their purposes.

B. The American Institutes for Research Study

The complexities of the issues and the diverse nature of the model centers supported by the BEH Program are constraints within which this study was undertaken. It is an exploratory study, restricted by the size and characteristics of the sample and concerned with the 15 states in their second year of contract funding at the time the study was begun (December, 1975). The 15 states and demonstration centers included are listed on the following page. In California, the "center" is unique in that it is a system consisting of seven semi-autonomous centers located at different areas in the state. Three such centers were included within this study, representing three different program approaches as specified in state literature. These were at Hacienda-La Puente Unified School District, Redlands Unified School District, and San Diego County Department of Education. The data base, then, includes 17 distinct projects.

STATE	NAME OF CSDC	SPONSORING AGENCY
California	California Child Service Demonstration Center System	California State Dept. of Education
	District Intensive Service Center	Hacienda-La Puente Unified School District
	Diagnostic Service Center	Redlands Unified School District
	Mobile Resource Center	San Diego County Dept. of Education
Illinois	Selective Grouping and Curricular Development for Secondary Programs for Adolescents with Specific Learning Disabilities	Evanston Township High School
Indiana	Child Service Demonstration Center for Children with Learning Disabilities	Center for Innovation in Teaching the Handicapped, Indiana University
Massachusetts	Project ERIN (Early Recognition/Intervention Network) Project First Chance	Education Development Center, Inc.
Mississippi	Child Service Demonstration Center for Children with Learning Disabilities	Mississippi State University
Nebraska	Child Service Demonstration Center for Children with Learning Disabilities	Educational Service Unit #9
New Mexico	New Mexico Learning Disabilities Child Service Demonstration Program	New Mexico State Division of Special Education
Ohio	Ohio's Learning Disabilities Child Service Demonstration Program	Ohio Division of Special Education
Pennsylvania	Model Learning Disabilities Systems	Pennsylvania Department of Education
Tennessee	PASS Model Project (Psychoeducational Agency/School System Model Project)	George Peabody College for Teachers
Texas	Project ECHO	Texas Education Agency
Vermont	The Chittenden South Supervisory School District Consulting Teacher Program	Chittenden South Supervisory School District
Virginia	Virginia Child Service Demonstration Center Learning Disabilities Program	State Division of Special Education
West Virginia	Kanawha County Schools Learning Disabilities Demonstration and Training Program	Kanawha County School System
Wyoming	Child Service Demonstration Center in Learning Disabilities--Regional & Statewide Technical Assistance	Region V Board of Cooperative Educational Services

The study was not designed to summatively judge the performance of any one center. Indeed, a constraint placed on this evaluation by the Request for Proposal (RFP) was that projects not be directly compared against one another because of very substantial differences in project size, years of involvement, and populations served (e.g., high school versus preschool students). Although all of the centers had been required to address themselves to the broad goals of the BEH Learning Disabilities Program as a condition of federal funding, the activities carried out in response to these goals were widely variable across projects. There were substantial differences also in the relative emphasis placed on the components of the federal program by individual projects. Consequently, it was intended that the study (a) describe each center's approach for meeting its own objectives and (b) to the extent possible analyze the various approaches in aggregate in relation to the overall BEH programmatic mission.

Because of the dual nature of this study, two reports have been prepared. The first, or main study report, is a cross-program analysis and bears on the concerns of the Bureau of Education for the Handicapped. The second report, which constitutes a separate document, is a compilation of case study descriptions of the centers in the study. Since the study intent is not to praise or criticize individual centers, but rather to understand, describe, and interpret activities within and across them, they are not referred to by name.

Although much of the information in the 17 case studies has been compiled and summarized in this volume, it is recommended that the case studies themselves be read for a clearer understanding of the contexts, the processes, the problems, and the successes of the local projects. Each of the 17 centers is unique in relation to the goals it is striving to meet and the strategies which have been developed to achieve those goals. These unique characteristics provide a tapestry against which the aggregate information in this volume can be better understood.

The following section of the report describes the methodology used in this study, including the identification of relevant research questions, the development of data collection instruments, the selection of the study samples, and the procedures used for data collection. The Methods section is followed by Chapter III, Results of Cross-Program Analysis. The chapter begins with a general overview of the context and staffing patterns of the CSDCs. The remainder of the chapter has been organized around the major areas of interest in the Learning Disabilities Program, as outlined in the federal legislation and the BEH guidelines for project funding--i.e., diagnostic/prescriptive procedures, coordination with other agencies, dissemination strategies and activities, replication strategies and activities, parent involvement, and Advisory Council participation. Within each section, cross-program data have been compiled and displayed in tables to the extent that the data support such aggregation. Each section also contains relevant information from the case studies as a framework for the discussion of the aggregate data. The two final chapters--Discussion and Conclusions, and Recommendations--are syntheses of both the cross-program and the case study data. In the course of this study, each of the authors visited from two to six CSDCs, spending a week at each site. They came away with insight and impressions which are not easily quantified but which are considered valid information for a more complete understanding of the ways in which learning disabilities are being approached in the field. Where there was consensus in the site visitors' impressions--and this happened to a considerable degree--the information has been summarized and included in an addendum entitled Speculations and Impressions.

II. METHODS

A. Identification of Program Characteristics of Interest

In general, this investigation was concerned with the principal areas of activity delineated in the Federal Register and mentioned in the Introduction section of this report. As an initial step in the study, staff members obtained copies of the proposals, annual and interim reports, and descriptive publications from the various centers (to the extent that they were available). These were reviewed in order to develop brief, preliminary descriptions of what each center's scope and purpose was and to develop a matrix of the tests and measures being used as background for the later task of assessing the diagnostic and prescriptive services provided by the centers.

Concurrently, the AIR staff reviewed selected literature related to the BEH Learning Disabilities Program and more general literature related to some of the philosophic issues underlying the classification and instruction of learning disabled children. Since a number of theories and educational methodologies have been promulgated within the area of learning disabilities, the purpose of this review was to help AIR staff members identify research questions which cut across particular philosophical approaches or intervention models. It was recognized that a major task of the study would be to design data collection instruments which would be relevant to the wide range of learner characteristics and instructional models that would be found in the CSDCs and which would lend themselves to objective analysis.

As further insurance that the underlying framework of the study would be fair to the goals and activities of all the projects, a group of outside consultants was invited to participate in the design phase of the study. This panel, along with in-house AIR experts, met in a two-day session during the early weeks of the study. The purpose of the meeting was to provide insights to the staff in a number of content-related areas and to suggest features of learning disabilities programming which the consultants considered important for an effective project.

Each of the external consultants was selected on the basis of his or her outstanding qualifications in specific areas of interest to the study. These areas included parental attitudes and involvement; CSDC operations; staff development; teacher training and educational programming; student diagnosis; and reading and perceptual, speech, and language disorders. The following panelists attended all or portions of the two-day conference at AIR's Palo Alto offices:

Dr. Kathryn R. Beadle is presently head of the Division of Communication and Language Disorders and Clinical Assistant Professor in the Departments of Surgery and Pediatrics at the Stanford University School of Medicine.

Dr. Robert H. Bradfield is Professor of Special Education and Coordinator of Teacher Training in Learning Disabilities at San Francisco State University.

Dr. Carolyn Compton is currently Education Director of the Children's Health Council, Palo Alto, California.

Dr. Gilbert R. Guerin is Chairman of the Department of Special Education, San Jose State University, San Jose, California.

Dr. Jeanne M. McCarthy is Professor of Special Education at the University of Arizona and former Director of the Leadership Training Institute in Learning Disabilities.

Dr. Martha Maxwell directs the Learning Center at the University of California, Berkeley, providing direct services to college-level learning disabled students.

Ms. Nancy Ramos is a member of the national board of directors of the Association for Children with Learning Disabilities and a past president of the organization's California affiliate, the California Association for Neurologically Handicapped Children.

Ms. Beth Willis is Coordinator of Special Education for Educational Service District #111 in Tacoma, Washington and former director of a learning disabilities project.

Ms. Becky Calkins is Program Coordinator of the Learning Disabilities Program for BEH.

The in-house consultants who attended the meeting were:

Muriel Bagshaw, M.D., formerly at Stanford School of Medicine and expert in developmental pediatrics

Dr. A. B. Chalupsky, director of a national longitudinal study of innovative educational programs; expert in program evaluation

Dr. H. B. Gelatt, psychologist and Guidance Director in the Palo Alto, California schools; expert in school-based testing and career guidance and counseling

Dr. Leroy Jones, knowledgeable in learning disabilities and remedial reading

Also present were the principal staff members for this study: Barbara Rodabaugh, Dr. Robert Weisgerber, Dr. Peter Dahl, Melanie Austin, and Francesca Galluccio-Steele.

Important questions and concerns generated during the meeting were incorporated into a working document entitled "Framework for Criteria" which was prepared and forwarded to the BEH project officer following the meeting. Copies were also sent to those consultants who had been invited to serve in a criteria review capacity (Dr. Guerin, Dr. McCarthy, and Ms. Ramos) for their comments. No major changes in the framework were required, though helpful comments were provided for the data collection instruments.

Several important issues and cautions were raised in the conference which had direct impact on the feasibility of carrying out the study as an orthodox evaluation of comparable projects. Briefly, the panelists generally agreed that:

- There were major differences among the centers in their target audience for services, their approach to delivering those services, and their objectives.
- The centers' assessment procedures were highly dissimilar in terms of extent of testing and type of testing done.

- Firm, clear criteria could not be applied uniformly across the centers; rather, each would have to be evaluated in terms of its own objectives.
- Attention should be focused on two general areas: the provision of student services and the stimulation functions of the centers, such as staff development, dissemination, and replication.

Each of these concerns, as well as the newness of the program, mitigated against the use of a standard evaluation design. It was decided that the study should be descriptive in nature, thus providing a basis for later, more targeted evaluations.

B. Instrument Development

Several data collection instruments were prepared for use in the study, based on the general requirements of the RFP. The content for each of the instruments grew out of the BEH requirements, the criteria developed during the consultant meeting, and the knowledge and experience of AIR staff members in the documentation of educational programs.

Student data collection form. The study plan called for a review of a small sample of student records from each of the 17 centers. Of special concern to BEH were the screening and diagnostic procedures being used to admit students to the project and the extent to which they had benefited from participation as indicated by their educational growth and achievement. The student data collection form was developed for use by AIR site visitors in recording relevant information from the individual student records maintained by the CSDCs, though no personally identifying information was to be recorded. Areas covered included the procedures by which students had been referred to the centers, the tests which had been administered, test scores, the characteristics of educational plans, the extent to which multidisciplinary teams and parents had been involved in diagnostic and prescriptive procedures, and evidence of student change attributable to the project activities.

Parent interview guide. Parents of students in the sample were to be interviewed to determine their involvement in project activities as well as their awareness and opinions of the project. An open-ended interview guide was developed for use by site visitors in recording the parents' responses. Questions covered such areas as when and how the parents became aware of the project, their knowledge of their children's learning disabilities and efforts being made to remediate them, perceived changes in their children's attitudes and skills, and what they felt were particular strengths of the CSDC project as well as areas of needed improvement. Parents were not personally identifiable on these forms.

Advisory Council questionnaire. One aspect of the study was the extent to which CSDCs had selected and utilized Advisory Councils in project planning and operation. It was decided that the most feasible and cost-effective way of collecting much of this information was by way of printed questionnaires which would be mailed to all Advisory Council members. Items on the questionnaire elicited information about the role, importance, and effectiveness of the Advisory Council as seen by its members. In addition, the questionnaire asked Council members to offer their evaluations of the various CSDC project components.

Dissemination questionnaire. A major requirement for funding under the Learning Disabilities Program was that CSDCs develop strategies for disseminating information about effective project components to appropriate individuals and educational agencies. This questionnaire was designed to be mailed to persons or groups identified by each CSDC as being prime targets in the dissemination process. Items on the form covered the type and adequacy of the information respondents had received from the CSDC as well as what additional information they would like. Respondents were not asked to give their names; however, they were asked to write in the dissemination target group to which they belonged.

Staff resume form. A one-page form was developed for the purpose of documenting the training and experience of each professional CSDC staff member. The forms were designed to be completed by the staff members at their convenience during the one-week AIR site visit. Included on the form were items covering educational degrees; years of experience in education, special education, and learning disabilities; and relevant experience and training in such areas as child development. These forms also were anonymous, with provision only for the staff member's functional CSDC title.

Program documentation guide. This form was designed to be the main working document used by the AIR site visitors in conducting interviews with CSDC staff members. It covered all of the major areas of interest to the study, including contextual data, source and amount of funding, non-financial support, student characteristics, staffing patterns, training programs, and those activities specifically called for in the federal guidelines for the project such as dissemination and replication. Items on the form were generally open-ended; the document was to be used as a structured interview guide, not as a verbally administered questionnaire.

Sufficient items were included on the guide to allow in-depth inquiry into any area in which a given CSDC was concentrating its activities. Because each CSDC operated within a distinctly different context, it was recognized that not all questions in the guide would be relevant at all CSDCs, and the irrelevant portions would not be included in those interviews. Although the guide was lengthy, it was planned that various sections could be completed during interviews with different staff members. There was no provision on the form for recording the names of those interviewed, although their general functions in the CSDC were noted.

Pilot tryouts of the draft instruments were held in two northern California centers not included in the sample (San Francisco and Castro Valley), though they are part of the overall California CSDC. These tryouts led to some deletions and additions of items and rephrasing of others. Ms. Ramos, the parent representative on AIR's consultant panel, reviewed the interview guide to be used with parents and the Advisory Council questionnaire.

Following the pilot tryouts, the instruments and accompanying documentation of the study plan were submitted to the U.S. Office of Education and the Office of Management and Budget for clearance and approval.

C. Study Samples

There were several populations of interest in this study, including the centers themselves, the students being served, their parents, and members of Advisory Councils and of dissemination target groups. In accordance with the Request for Proposal, the samples chosen to represent each group were limited in number at the various sampling levels, e.g., numbers of states included and numbers of students and parents involved. Sampling for the evaluation of dissemination outcomes and for Advisory Council participation was not so constrained, and a greater density of sampling occurred.

Centers. During the period covered by this study, the school year of 1975-76, there were 29 CSDCs located in 27 states plus Puerto Rico. Fourteen of these centers were operating on a grant status, and 15 were on a contract basis. It had been predetermined by BEH that the sample should consist of the 15 contract-funded centers because (a) they were all in their second year of contract funding and therefore had had at least a year in which to organize and refine their procedures, and (b) project documentation and reporting requirements for contract funding were more clearly defined than those for grant funding. This made it likely that there would be more consistency in the types of data available across the CSDCs funded by contracts.

One of the states included in the sample was California, where a system consisting of seven different centers was in operation. It was determined early in the study that the California system included three distinct models. With the concurrence of the BEH project officer, the decision was made to document the activities at three centers which were representative of the three models. These three California centers were treated as discrete projects, so that the total sample consisted of 17 centers located in 15 states.

Students. The RFP had called for the examination of a small number of student records (up to 140) as a way of reviewing the screening, diagnostic, and prescriptive procedures being used across the centers. A sampling plan was developed in which nine to ten students were to be selected randomly at each center from among those who had received CSDC assessment and instructional services for at least one year. Each CSDC was asked to provide AIR with a list of code numbers for these students, stratified by grade level. A number of CSDCs were not providing direct student services but rather were indirectly demonstrating such services through teacher training programs; these centers were asked to identify students assigned to teachers who had been trained by the center. Based on the grade levels served and the number of students in each grade, student numbers were randomly selected by the AIR study staff. Alternate numbers were also picked to counterbalance attrition due to student transfer or dropout or the unwillingness of their parents to be interviewed. The CSDCs were then notified of the student numbers selected and were asked to contact the parents of these students in order to schedule parent interviews during the AIR site visits. If a parent declined to participate, then another student code number was selected from the same stratum on the alternate list, and parents of the alternate students were invited to come for interviews. This process was repeated until the total sample was selected at each center.

Where CSDCs had a single, distinct, operational model, the student sample was limited to nine students. Where alternative models existed within a center (e.g., different preschool and secondary school models), five students were randomly selected from each model. A total of 145 student numbers were selected for the sample. Test results and educational records for 133 students were later examined. Although the records were generally made available for inspection, data could not be copied from nine student records in one CSDC because of state laws relating to privacy; the other cases represent records which were missing or otherwise inaccessible during site visits.

Parents. This sample consisted of the parents of students whose records were reviewed. Interviews were conducted during site visits with 112 parents, out of a potential sample of 133. Although data from student records could not be copied in one state, it was possible to interview nine parents in that state and these parent data were included.

Approximately one-third of the discrepancy between the student and parent samples is accounted for by parents who were scheduled for interviews but who did not keep their appointments. The remainder of the missing cases were from three CSDCs where local conditions hindered parent participation. In one case the schools had closed ahead of schedule and not all parents could be contacted. In the other two cases, the centers were primarily technical assistance projects with little direct involvement in the local school communities. It was the judgment of the project directors in these states that only a small number of parents would understand the purpose of the interview; consequently, only a limited number were contacted.

Advisory Councils. Based on a preliminary review of CSDC documents, it was estimated that the total number of Council members was approximately 225; all of these members were to be contacted via mailed questionnaires. During the AIR site visits, CSDC project directors were asked to provide lists of the names and addresses of persons serving on their Advisory Councils, and these lists were later used in mailing the questionnaires.

Not all of the centers had appointed Advisory Councils for 1975-76, for the reasons explained in Section G. This population therefore consisted of 13 Councils. A total of 165 questionnaires were sent; 76 responses were received for a 46% return rate.

Dissemination. During site visits each center director also was asked to provide a list of individuals or representatives of groups who were prime dissemination targets. In view of the obvious intent of the federal guidelines that dissemination should stimulate awareness of learning disabilities within the state served by the CSDC, with emphasis at the local level, actual mailings of questionnaires were restricted to those persons whose addresses were within the state boundaries of a particular CSDC. The size of the lists varied greatly. In order that a few centers not be unduly represented in the aggregated data related to dissemination, the sample was limited to 30 names for each CSDC. Questionnaire recipients were randomly selected by AIR from those lists which were longer. There were 299 questionnaires mailed and 199 returned for a response rate of 69%.

D. Data Collection

Each CSDC was notified by BEH that it would be visited by two members of the AIR staff, and the dates of the visit were later agreed upon between the CSDC and AIR. A considerable commitment of staff time was requested, and visits had to be scheduled close to the end of the school year to allow for 1976 data on student testings to be obtained. Nevertheless, each of the

CSDCs made arrangements so that appropriate staff members and parents could be interviewed. Five days were spent at each CSDC, except that a total of 7 1/2 days were spent in visiting the three California centers, exclusive of pilot testing.

Site visitor training. AIR staff members prepared for the site visiting in several ways. These included:

- Training sessions at AIR covering on-site data collection procedures, the terminology and intent of questions posed on the interview guides, and procedures for maintaining anonymity of the student and parent data;
- Attendance at a one-day workshop on interviewing techniques;
- Attendance at a State Advisory Council meeting at which the directors of the California centers described their activities; and
- Attendance at the National Conference of the Association for Children with Learning Disabilities, where presentations were made by each of the 17 CSDCs.

In addition, the site visitors observed three local programs serving learning disabled students, at the preschool, elementary, and secondary levels. They also reviewed CSDC documents from the 15 states.

All of the site visitors were professional AIR employees, representing a composite of previous experience in on-site data collection and evaluation of programs serving the handicapped. Teams of two were assigned to each site but the composition of the team was varied (as much as was practicable) from site to site.

Approximately six weeks before site visiting began, letters were mailed to the directors of the 17 centers, confirming the site visit dates and providing information about the nature and purpose of the visits. Four attachments were enclosed with each letter: a sheet giving background information on the study, a list of questions to be answered by the study, a description of site visit plans, and a description of the student sampling plan and the code numbers which had been selected for that site. All site visits were completed between early May and mid-June of 1976.

Interview procedures. Just prior to the site visits all project directors had been sent a form to aid them in scheduling staff interviews throughout the week. Interviews were conducted with staff persons according to the match between their responsibilities and the areas of emphasis in the program documentation guide. The interviews were flexible in that questions were not pursued in depth in areas which were not particularly emphasized at the center. On the other hand, any information not covered by the questions was recorded if it related to the CSDC's fulfillment of its objectives.

For the most part, the parent interviews were arranged and scheduled by CSDC staff members prior to AIR's visit. Most interviews were conducted in person at the schools, the CSDC offices, or in the parents' homes. Five interviews were conducted by telephone. Intra-state travel was required in several cases. A small number of parents who had been scheduled were not interviewed because of unforeseen events (trip to the hospital, missed appointment, etc.).

Questionnaire procedures. Following the site visits, questionnaires were mailed out with prestamped return envelopes and a cover letter explaining the purpose of the study to the dissemination and Advisory Council groups. No personal identification was required on these forms, but respondents were asked to fill in the name of their state.

Several letters of inquiry came back to AIR from persons on both lists who (a) had not heard of the CSDC in question or (b) were not aware of having been appointed to an Advisory Council. All of these letters were answered with clarifying information. By design, there was no way to distinguish those who had answered the questionnaires from those who had not, because of the anonymous nature of the forms. For this reason, as well as the adequacy of the return rate (46% for Advisory Councils and 69% for dissemination target groups), no follow-up mailings were made.

E. Analysis

The information from the interviews, student records, and questionnaires was organized according to substantive questions arising from the Bureau of Education for the Handicapped's expressed programmatic concerns. Two prime questions were addressed:

1) To what extent are the children served by CSDCs diagnosed as learning disabled, according to the federal definition, and what is the relationship of the diagnosis to the provision of educational services?

2) To what extent have CSDCs stimulated state and local services to learning disabled children?

In addition to the prime questions, a number of subordinate questions about the eight areas of concern identifiable in the enabling legislation were prepared. These questions became the basic outline by which the data from all 17 centers were aggregated.

Area: Diagnostic/Prescriptive Procedures

1. Were students (whose records were examined) tested or screened in each of the exclusionary categories as part of the identification/screening/assessment procedures?
2. Were students (whose records were examined) tested for specific language and/or processing disorders?
3. To what extent are the services being delivered by CSDCs related to the results of assessment?
4. To what extent are multidisciplinary teams involved in decision-making about student assessment and educational programming?
5. To what extent are parents involved in decision-making about student assessment and educational programming?

Area: Parent Involvement

1. To what extent are parents informed about and involved in activities of the CSDCs?
2. Do parents perceive positive changes in their children as a result of the services provided by CSDCs?
3. What are the strengths and weaknesses of the projects as perceived by parents?

Area: Overview, Context, and Staffing of CSDCs

1. To what extent have CSDCs attempted to serve as demonstration models for an entire region, state, or student population?
2. To what extent are CSDCs supported by local and state resources?
3. To what extent are CSDC projects being carried out by persons with education and experience in the field of learning disabilities?

Area: Advisory Council Participation

1. To what extent have CSDCs selected and utilized Advisory Councils?
2. To what extent do Advisory Council members feel that CSDC projects are effective?

Area: Coordination with Other Agencies

1. To what extent are CSDC activities coordinated with those of other agencies?
2. Which outside agencies or individuals have been especially effective in helping CSDCs meet their goals?
3. In what ways could support from outside agencies be more effective?

Area: Dissemination Strategies and Activities

1. To what extent have CSDCs made efforts to disseminate information about learning disabilities and about CSDC services?
2. To what extent have dissemination efforts reached the target audiences?
3. What is needed to make dissemination more effective?

Area: Replication Strategies and Activities

1. To what extent have CSDCs made efforts to replicate model programs?
2. What are the obstacles to effective replication?

Both the limited N in the sample (17 centers) and the uniqueness of structure and purpose in the centers precluded the use of a rigorous evaluation design. Nevertheless, the type of broad programmatic analysis that this report represents, including appropriate descriptive statistics and case studies of the 17 individual centers, does provide insight into the extent to which the prime questions are being satisfied.

F. Study Assumptions and Limitations

Although the study was concerned with CSDCs that were all in the second year of contract funding, it cannot be assumed that they had been functioning as centers for an equal period of time. Certain centers had been funded previously under grants or had received local support, and therefore had a greater period of time in which they could develop diagnostic and educational procedures; materials and tests; and strategies for training, dissemination, and replication.

The results reported in the following section are based on data supplied to AIR by the centers through their own documentation and interview statements. Questionnaire responses were from organizations and individuals whose names and addresses were supplied by the centers. Both interview and questionnaire data, then, are subject to possible unknown biases.

The issue of unknown bias is of less concern in the data about testing and educational services provided to the students, because of the random selection of the students and the preexistance in the student records of most of the information. Nevertheless, the small student sample itself limits generalizability of the demonstrable effects at any given CSDC. It should also be pointed out that the total range and nature of services being provided across the Learning Disabilities Program as a whole were not documented by this study, which did not include 14 CSDCs (funded under grants) participating in the BEH Program during 1975-76.

A related limitation in this study lies in the variability of the CSDC objectives. Centers aimed primarily at teacher training and the improvement of services at that level are clearly quite different from those that are emphasizing direct student services to a specific target population, e.g., in a school district. Such gross differences lead to substantial variation in the completeness of data (by variable) supplied by the centers and in the extent to which the data could be aggregated for analysis.

III. RESULTS OF CROSS-PROGRAM ANALYSIS

As indicated previously, the variations of scope and purpose among the CSDCs included in this study precluded consistent aggregation of data for each area of interest. Grouping was accomplished only to the extent that it made sense to do so and as a result, the number of CSDCs represented in any given tabular presentation may vary. To understand this diversity, then, it is appropriate to begin with an overview of the CSDCs, explaining the context in which they operated and their staffing levels. Following this overview, the results will be reported by area of concern, roughly in the order of priority of attention in most centers. Major sections in this chapter are:

A. Overview, Context, and Staffing of CSDCs
B. Diagnostic/Prescriptive Procedures
C. Coordination with Other Agencies
D. Dissemination Strategies and Activities
E. Replication Strategies and Activities
F. Parent Involvement
G. Advisory Council Participation

A. Overview, Context, and Staffing of CSDCs

Scope of projects. An eventual goal of the Title VI-G Program is the promotion of services to learning disabled children in all parts of the country through establishment of CSDCs in each of the states. As of 1975-76, such centers were located in 27 states and Puerto Rico. However, the area within a state served by a center ranged considerably. The case studies describe in some detail the service area of each of the 17 centers in this study. Briefly, the scope of the centers was as follows:

- One center operated within one school only.
- One center was a university-based teacher training program which accepted a limited number of students on referral from districts throughout the state.
- Two centers operated within their local school districts only.

- Three centers primarily served their local districts but provided replication training and services to districts throughout the state.
- Four centers were regional, providing services to multi-county areas.
- Six centers provided services throughout the state to school districts which had been recruited or selected for participation in the project.

There was also a considerable range in the type of areas served by CSDCs, from rural to urban. Figure 1 below shows the demographic contexts within which the 17 centers provided services. It should be pointed out that heavy concentration in rural or small town regions reflected the intent of the centers to help meet the need for special services in areas where they were sparse or nonexistent. It does not necessarily mean that there was a greater prevalence of learning disabled students among rural populations.

Student populations. A question of interest to this study was the size and composition of the student population included in the sample. A primary function of a model center is the demonstration rather than provision of services to learning disabled students. As a result, not all of

No. of Sites	Rural	Small Town	Suburban	Urban*
8	------------	------------		
1	------------	------------	------------	
1	------------		------------	
1			------------	
2			------------	------------
4	------------	------------	------------	------------
Total Sites	14	13	9	6

*Urban areas include cities with populations greater than 50,000, as defined by the U.S. Bureau of the Census.

Figure 1. Types of Demographic Areas Served

the 17 centers provided direct services to students (i.e., project staff interacting with identified students); some provided student services indirectly through teacher training or technical assistance to the resource, itinerant, or regular classroom teacher. In assessing the range of grade levels served by the centers, projects were categorized on the basis of which appeared to be most emphasized--direct versus indirect services. The results are shown in Figure 2. Although there was a slight concentration at the primary and elementary levels, all grade levels from preschool through grade 12 were represented somewhere within the 17 centers. A more specific breakdown of the number of students at each grade level for the sample of 133 students is shown in Table 1.

The total number of students served proved to be highly variable across sites and difficult to determine in some cases, especially for centers whose major focus was teacher training. Table 2 shows the numbers obtained either from CSDC staff members or from end-of-year reports. Where there were discrepancies, the figures were confirmed with project directors.

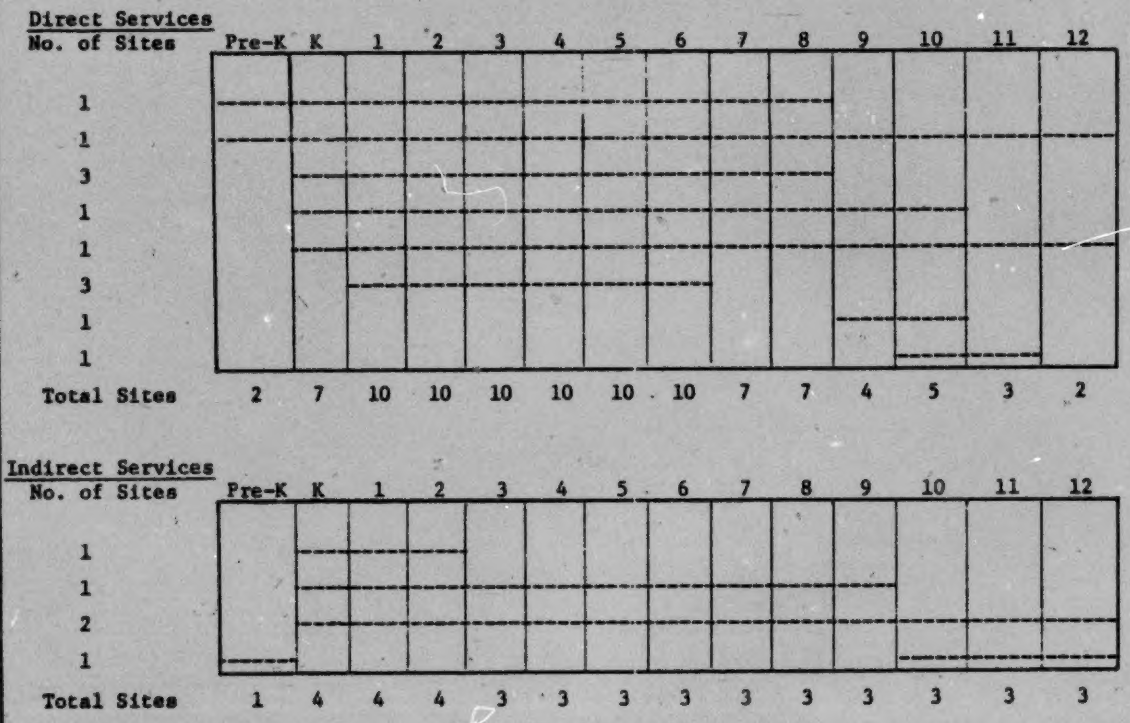

Figure 2. Grade Levels Served by CSDCs

TABLE 1

Grade Levels of Students in Sample

Sites	N	Pre-K	K	1	2	3	4	5	6	7	8	9	10	11	12	Grade Range In Sample
A	4					2		1			1					3-8
B	9		2	7												K-2
C	9			1		2	3	2	1							1-6
D	9				1	1	1	6								2-5
E	5		1				1	1	1	1						K-7
F	9											1	8			9-10
G *																
H	9			3	1	2	2	1								1-5
I	12	3		1	1	1	3	1	2							Pre-K - 6
J	5				1	1	1					1	1			2-10
K	9		1	1	2	5										K-3
L	9		1	2		2	3					1				K-9
M	8	4										3	1			Pre-K -10
N	9				1	2	3	3								2-5
O	9			1	4	2	2									1-4
P	9			1				2	2	1	1	1	1			1-10
Q	9												6	3		10-11
	133	7	5	17	11	20	19	17	6	2	2	7	17	3	0	

* No records were provided.

It should also be noted that these figures represent one point in time--and they tended to change during the year as students were added to or dropped out of the projects.

Projects have been grouped in Table 2 on the basis of whether they served students directly or indirectly. Although two centers indicated they provided both types of service, they have been listed in the group which best reflects their main objectives. The range of students served in both categories was quite similar. From 34 to 676 students received direct services, and from 44 to 600 students received indirect services.

These population estimates are presented with some reservations, since they make it appear that a relatively small number of students were benefiting from the Learning Disabilities Program. The number of students served either directly or indirectly should not be considered a complete measure of program effectiveness nor of relative impact within a particular state, since these figures did not reflect any of the following aspects of the centers' operations:

- The number of different activities being carried out by the centers, e.g., dissemination, replication, etc.
- The intensiveness of services provided to individual students
- The contextual variables which acted as constraints on services to students, e.g., percentage limitations on number to be served, etc.
- The overall resources and personnel available to the center.

In addition, project directors of four CSDCs emphasized that their centers had helped large numbers of students outside of the project by fostering awareness of learning disabilities among school personnel and through teacher training activities. They pointed out that the numbers of students counted as participants should be considered an underestimate of all students benefiting from the projects.

During the interviews, project directors were asked to estimate the percentage of students within their service areas who were eligible for services under the Learning Disabilities Program, according to criteria used in their states. These criteria are described in detail in the case studies. In nearly all cases, the criteria paralleled those specified in

TABLE 2

Number of Students Served in 1975-76

Site	Direct Services	Indirect Services
D	90	-
E	72	-
F	320	-
G	244	-
H	74	-
I	209	-
J	70	-
K	52	44
N	676	-
O	161	-
P	444	-
Q	34	-
A	73	253
B	-	270
C	-	152
L	-	425[a]
M	-	281
TOTAL	2519	1425

[a] Number of students identified in 1974-75 and 1975-76; no data re number receiving services were available.

the federal definition of learning disabilities. The purpose of this question was to help shed some light on the current issue of the number of students in this country who might be properly classified as learning disabled and in need of special educational services, since to date there are only limited data to answer this question. The project directors responded to this inquiry with three types of estimates: those imposed by state law, their own personal estimates, and those based on actual screening or needs surveys. Legal limitations ranged from 1% to 8% in the states visited; the mode was 2%, reflecting the limit set by the federal guidelines. Project directors in six states provided estimates ranging from 5% to 15% based on their own training and experience in special education. The average estimate was slightly over 9%. Two of the states had conducted large-scale screening for learning disabilities, and one state had conducted a state-wide needs survey as part of its overall special education program. These data-based incidences were reported as 7.38% in one state, 10% in a second state, and from 7% to 12% across five districts in the third state.

When asked the question, "Is there a significant number of learning disabled students not being referred to the program," project directors at 15 of the CSDCs responded as follows:

Yes	No	Probably	Can't Say
10	2	2	1

Two centers felt this question was not applicable to their activities as technical assistance projects. Reasons given for lack of referral and the number of centers citing each reason were the following:

- Child not causing problem is often overlooked (3)
- Teacher/parent/physician unawareness of services (2)
- Lack of knowledge about LD (parents and schools) (2)
- Not enough funds (2)
- Unsophisticated teachers (1)
- No good screening mechanism (1).

- Teachers not referring students with math deficiencies (1)
- Local politics/social resistance (1)
- Some LD children are not in school (1)

It is possible to see a relationship between most of these reasons and a general unawareness--of both learning disabilities and of services offered by the centers--on the part of individuals who could be expected to initiate the referral process. These responses also tend to underscore the importance of the dissemination function which projects were expected to carry out. The extent to which the CSDCs had been able to address themselves to dissemination, and some of the limitations on these activities, are discussed in a later section.

Project staff members cited ten ways in which referral services might be improved. Approximately half the suggestions were related to better awareness, while half reflected the need for resources such as continued or increased funding and teacher training programs. Specifically, the following needs were mentioned:

- More inservice training (3)
- Parent education (2)
- More school awareness (2)
- More dissemination (1)
- Better public awareness (1)
- Continued Title VI-G funding (1)
- Extra funds for identifying LD child (1)
- School-wide screening program (1)
- Increase LD staff (1)
- More LD training in universities (1)

Again, most of these items can be tied to the need for improved awareness and consequently, increased dissemination efforts.

Because learning disabilities may be manifested as language processing disorders, concern has been expressed by some learning disabilities specialists that children might be incorrectly identified on the basis of cultural or linguistic differences. If this were in fact happening, it could be expected that minority groups would be disproportionately represented in the CSDC student populations. The largest percentages of students in the projects were Caucasian, as shown in Table 3. It was not possible to compare these figures with published population statistics for the various locations because of the imprecise boundaries of the areas served by the CSDCs. However, for those centers which showed a clearly disproportionate number of minority students (Sites E, G, and N) project personnel provided estimates based on actual population figures for the district, region, or state. For these sites, therefore, the figures should not be construed as reflecting an inappropriate inclusion of students with cultural or linguistic differences.

Table 3 represents percentages provided by CSDC staff members. Three types of estimates were provided: those based on statewide or regional population figures, those based on teacher estimates, and those based on actual breakdowns of students in the project. As indicated by the table, two centers did not provide any estimates, and six centers based their estimate on general population figures, since they apparently did not keep records of the ethnicity of students in the project.

Major project components. When the question is asked, "To what extent have the various components of the Learning Disabilities Program been emphasized in the services delivered by CSDCs," Table 4 makes it quickly apparent that not all areas have received equal attention within all centers. Indeed, overall profiles of each center's areas of emphasis varied to such an extent that it is more logical to think of them as unique entities rather than as subsets of a particular model or type of program.

The figures in Table 4 were compiled by the AIR site visitors from interview data and printed documents supplied by the CSDCs, such as interim and final reports and brochures. In view of the fact that several areas of concern to the BEH Learning Disabilities Program were not addressed, the original Request for Proposal (RFP) issued by BEH for model demonstration projects and the funded proposals themselves were reviewed. The purpose of this review was to determine the fit between the RFP and both the proposed and actual CSDC activities.

TABLE 3

Ethnic Characteristics of Students Served by CSDCs
(Unless otherwise noted, figures are actual
breakdown of students in project.)

Site	% Caucasian	% Black	% Hispanic	% Asian	% American Indian	% Other
A (Teacher est.)	85	7	7		1	
B (Statewide est.)	98	1	1			
C (Teacher est.)	100					
D	81	19				
E (District est.)	58	3	36	2		1
F[a]	7-100	4-54	0-93			
G (Regional est.)	49	50			1	
H[b]						
I	100					
J	74	6	20			
K	100					
L	100					
M[b]						
N (State-wide est.)	51		41		8	
O	95	5				
P	99		1			
Q	84	13		3		

[a] Range across five sites
[b] No estimates provided

TABLE 4

Relative Emphasis of CSDCs in Terms of Their Major Documented Activities*

Area	Primary Emphasis[a]	Secondary Emphasis[b]	Not Addressed[c]
Direct Services to Students	12	0	5
Training of Teachers, Paraprofessionals, Others not on CSDC staff, to work directly with LD children	11	3	3
Dissemination of Information about the Program (including manuals about LD, etc.)	10	7	0
Technical Assistance for Replication (other than training of replication site teachers, included above in Training category)	9	3	5
Instructional Materials Development (does not include dissemination materials or program manuals)	8	6	3
Technical Assistance (other than replication, and including in-class work with teachers)	8	5	4
Research on Nature of LD, Remedial Approaches, etc.	4	2	11
Parent Training Programs	3	6	8
Training of CSDC Staff	0	13	4

[a] Among the top 2 or 3 objectives
[b] Part of CSDC activities but not major component
[c] Not a CSDC activity
[*] Reported by number of CSDCs

According to the RFP (issued in FY 74, the year in which the 17 CSDCs in this study first received contract funding), proposals were to describe the following:

1. The model system of educational intervention, including characteristics of children to be served, planned coordination with community agencies and schools, and the membership and role of the Advisory Council

2. A design and timeline for a replication system
3. Strategies for disseminating information about CSDC materials and other products
4. The number of trained staff available and the staff training program

CSDCs were asked to describe research topics and methodology, if planned, but there was no stated requirement for such a research component. The Background Information section of the RFP included one reference to parental participation as an emphasis of CSDCs which had been previously funded. However, in the section outlining the content of proposals, there was no requirement for a parent participation component. Thus, the two areas which appear to be of least concern across the CSDCs—research and parent involvement—were not emphasized by the RFP, although they are in the Federal Register guidelines.

The analysis of proposals submitted in response to the RFP indicated that CSDCs generally had addressed themselves to the requirements, as shown in Table 5. There was wide variability in the specificity with which activities were described, both across and within proposals. In a number of

TABLE 5

Number of CSDCs Addressing Major Program Components in FY 74 and FY 75 Proposals

Major Program Component	Description in Proposal		
	Detailed	Vague	Missing
Program Planning and Operation	13	4	0
Demonstration of Diagnostic/ Prescriptive Services	13	4	0
Coordination with Other Agencies	10	5	2
Advisory Councils	14	0	3
Parent Participation	8	6	3
Replication	15	1	1
Dissemination	10	7	0

cases, although a particular component was mentioned, there was insufficient detail to determine exactly what the activities associated with that component would be. Although parent participation was not clearly stated in the RFP, most CSDCs did plan for such a component in line with Federal Register guidelines. The extent to which all the plans were realized at a particular center is discussed in some detail in the case studies and for the program as a whole in later sections of this volume.

Overall CSDC support. Although all of the centers in this study were considered to be part of a federal demonstration program, they represented the combined investments of many agencies. For example, none of the 17 centers in this study relied solely on Title VI-G funding to carry out their programs, and in fact, a number of them received most of their financial support from state or local sources. Title VI-G provided half or less of the funding for the nine centers with budgets of more than $170,000, as shown in Table 6.

Total budget figures were not always easy to obtain or to verify. Some of the difficulty stemmed from the multiple sources of funding. In one case, the project director had requested clarification as to the status of an updated budget which BEH had requested several months earlier. At the time of the site visit, confirmation had not been received. In another state, the request had been made of BEH that the CSDC be allowed to carry over some of their funds for a summer training program. Pending approval of this continuation, the project director could not specify what the total budget figure for 1975-76 would be. The figures shown in Table 6 include funds awarded under the BEH contracts and do not reflect any modifications pending as of spring 1976.

All of the centers also received significant and diverse amounts of "in kind" or local effort support from sources other than the Title VI-G Program, as shown in Table 7. The case studies in the appendix to this report describe in more detail the extent of the services provided to individual centers by other agencies.

Further evidence of support for educational programs was the priority they were given at the local level. Project directors' estimates of this priority are shown in Table 8. Typically, those centers which considered

TABLE 6

Level and Sources of Financial Support for the 17 CSDCs

CSDC	1975-76 Total Budget	% VI-G	% Other Federal	% State/ Local	% Other
J	$ 75,427	42	58[a]		
L	$ 75,709	87		13	
A	$ 77,600	34	66[a]		
C	$ 97,000	74		26	
Q	$105,306	78		22	
H	$108,512	64		36	
G	$134,689[e]	86		14	
K	$167,254	87	1[b]	8	4(univ.)
E	$172,400	17	15[a]	68	
P	$196,140	43		57	
I	$200,000	50		50	
O	$202,693	42	28[c]	30	
D	$275,784	34		66	
F	$395,500	38	18[a]	44	
N	$463,600[f]	14		86	
B	$700,000	14	12[d]	74	
M	$725,650	9		91	

[a] Title VI-B
[b] Title VI-D
[c] Title III
[d] Title VI-C
[e] Includes $35,560 in carry-over funds from 1974-75
[f] Includes $15,000 in carry-over funds from 1974-75

themselves as having top priority were acting as vehicles for carrying out state mandates for the provision of special education services to all handicapped students. This was largely the case for those centers which reported a high or very high priority as well. As one project director commented, "The state puts demands on the local education agencies for services, and the CSDC is the only source in the state to which they (LEAs) can turn for help."

Those centers reporting low priority cited unusual situations within the local district which worked against full acceptance of the CSDC. A

TABLE 7

Number of CSDCs Reporting Indirect Support from Other Agencies

Type of Indirect Support	Source Federal Agencies (other than VI-G)	SEAs	LEAs	Institutions of Higher Education	Civic/ Service Organizations	Other Delivery Systems[a]
Facilities	1		14	3		
Equipment	1		11	2	3	
Materials	10	2	7	4	5	
Personnel or Salaries for Staff Members	1	3	11	5		
Consultants/Technical Assistance	8	6	5	9		
Information	11	7	2		2	
Auxiliary Services[b]	1	2	3	2	6	12
Help with Dissemination	4	6	1	2	10	
Training	8	5	2	9		
No. of Times Mentioned	45	31	56	36	26	12

[a] Medical and social welfare agencies, etc.
[b] Physical examinations, student counseling services, etc.

comment from one project director serves as an example: "The school board feels that federal projects cost more than they bring in. The board made it very clear at the outset that it would not continue the project when federal funds were no longer available."

A clear intent of the Learning Disabilities Program is that after a period of initial Title VI-G funding, the centers will have established themselves as part of their district or state special education programs and will be fully supported by funds other than those from Title VI-G. As of the spring of 1976, centers which had operated under grants and contracts

TABLE 8

CSDC Priority at Local Level

Relative Priority	No. of Centers
Top	4
High or very high	7
Low	1
Ranges from low to top in districts served	2
N/A	3

from BEH for four years were no longer eligible to reapply unless there was a major shift in project focus. (For fiscal year 1977, there has been a change back to grant rather than contract funding, and period of eligibility in the future is undetermined at this time.)

The most objective, if limited, measure of the extent to which the continuation aspect of the program has been achieved is the status of the 17 centers in the 1976-77 school year. Nine of the 17 centers are continuing with Title VI-G grants. Four centers are continuing with other state and local support; two of these will operate at a reduced level of effort. The status of one center was unclear at the time this report was written, since federal funds were withdrawn during the fall of 1976.

Three of the centers will not continue. One of the three operated within a single school, one provided regional services, and the third was a statewide effort. Two of the three were targeted at learning disabled adolescents, and both encountered implementation problems within the secondary school setting. Both the local and regional projects reported lack of commitment--and even opposition--from the local and state education agencies with which they were affiliated.

Staffing patterns. It proved difficult to obtain precise figures about staffing patterns across the 17 sites for two reasons. First, most of the center staffs were combinations of full-time and part-time employees. Even if expressed in terms of full-time-equivalent people, the figures would be virtually meaningless when used to convey information about the relative size or composition of the staff at any particular site. Second, staff members were paid in varying degrees by Title VI-G, local, state, or other funds. Also, they were not always located in the center headquarters but sometimes were working in schools or other off-site locations. As an illustration, one of the largest centers in terms of budget had two administrators, one of whom was full time and one of whom was part time. The proportion of the combined salaries of these two persons which was paid by Title VI-G was only 0.16, with the balance coming from other agencies.

It is possible to report the number of persons in various professional categories who were listed by project directors as being members of the core CSDC project staff--that is, those persons who were considered essential for carrying out that center's program model. These figures are shown in Table 9. It should be emphasized that not all of these staff members were being paid by Title VI-G funds. The figures should be considered only a general indication of the type and number of people involved across the Learning Disabilities Program. What is most notable was the relatively small number of sites which had specialists such as psychologists, therapists, and curriculum or materials specialists as staff members. Based on interview data, this was primarily a reflection of the shortage of such trained professionals in the areas being served. Where such shortages existed (typically in rural areas), a prime focus of the centers' training activities was the preparation of regular and special education teachers to carry out the specialists' functions.

During the AIR site visits, staff members of the 17 CSDCs were asked to complete resumes which briefly listed their professional training and experience in the areas of special education and learning disabilities. Table 10 summarizes the qualifications reflected in those resumes for four categories of CSDC staff. For simplicity, the data for "Other Professional Staff" are reported under the heading of special education, although persons in this category most often had degrees or training in disciplines such as speech therapy, psychology, or counseling rather than in special education per se. In interpreting Table 10 several things should be kept in mind. First, the special education/learning disabilities distinction was an attempt at showing the degree of relevance in training, and a given indi-

TABLE 9

Numbers of Full- and Part-Time Staff Reported by CSDCs

Category	Full Time	Part Time	Range	No. of CSDCs Reporting Staff Members in this Category
Administrators	13	12	1-2	17
Classroom Teachers[a]	146	15	1-70	5
Itinerant/Resource Teachers[a]	140	1	1-36	11
Curriculum/Materials Specialists	4	37	1-36	5
Diagnostic/Remedial Specialists	8	52	1-36	7
Counselors/Psychologists/Social Workers	2	41	1-36	5
Therapists (Speech and Occupational)	1	36	1-36	2
Clerks/Secretaries/Administrative Assistants	19	46	1-37	17
Paid Aides	56	3	1-24	7
Evaluators/Consultants	0	12	1-3	7
Student Interns/Research Assistants	4	37	1-26	5
Field Coordinators/Supervisors	10	18	1-5	7
Trainers	7	2	1-6	2
Volunteers	0	63	5-30	4

[a] Usually employed by local districts, but considered part of CSDC project

TABLE 10

Professional Training of Staff in the 17 CSDCs

Professional Category	N	Degree in Special Ed.	Training in Special Ed.	Degree in LD	Training in LD
Administrators/ Coordinators[a]	29	13	21	7	15
Teachers[b]	43	15	31	14	36
Classroom Aides	30	4	10	0	27
Other Professional Staff[c]	44	40[d]	44[d]	4	27
TOTAL	146	72	106	25	105

[a] Twelve administrators/coordinators had professional degrees in other fields such as guidance, counseling, school or social psychology, and speech therapy.

[b] Although not shown on this table, it can be assumed that all teachers had appropriate teaching credentials.

[c] This category includes professional service people such as psychologists, counselors, teacher trainees, speech therapists, etc.

[d] This number represents a degree or training in a professional field relevant to their area of specialty.

vidual might have training in both the broader and narrower fields. Second, all persons having degrees (bachelor's or above) were counted as having training in that area, hence the difference between the two figures would indicate the persons who had received training but not a degree. Third, staff who reported a degree only in general terms (e.g., B.A., M.Ed.) were not credited with having a relevant degree unless this was made clear in the narrative of their responses. Therefore, the proportion of persons having relevant degrees may well be somewhat higher than shown in the table.

Table 11 shows the average number of years of relevant experience of staff members in the CSDCs. What is most apparent from this table is that both administrators and specialists ("Other Professionals") tended to have more experience in special education and education per se than did the

TABLE 11
Relevant Experience of Staff in the 17 CSDCs

Professional Category	N	Average Number of Years					
		In CSDC	Range	In Special Education	Range	In Education	Range
Administrators/ Coordinators	29	2.4	1-5	6.7	1-20	10.0	1-20
Teachers	43	1.7	1-5	2.6	1-11	3.8	1-12
Classroom Aides	30	1.8	1-4	1.8	1-4	2.2	1-8
Other Professional Staff	37	2.1	1-4	5.4	1-16	9.8	1-26

project teachers, although there is no obvious explanation for why this should be the case.

Examination of Tables 10 and 11 shows that at each level a large proportion of the staff had relevant training and/or experience either in special education or learning disabilities as such. Most of the teachers and classroom aides reported receiving training in learning disabilities. Other professional staff clearly had appropriate qualifications in their fields, and more than half also reported training in learning disabilities.

For most of the centers, finding qualified persons to serve as staff members had not been a problem. However, one of the centers had been hampered in recruiting because of late notification of funding, and two of the rural centers had had difficulty in attracting persons with specialized training to their areas. Three of the centers had need for persons with special mixes of skills, and these were not always easy to find. Almost without exception, center administrators and supervisory and training personnel appeared highly qualified in the fields of special education and learning disabilities, on the basis of information from the resumes.

During the on-site interviews, the most difficult questions for CSDC staff members to answer proved to be those concerned with training activities. Training (or staff development) was such an integral part of the educator's job that it was virtually impossible to separate training per se from such activities as preservice or inservice meetings and seminars; attendance at conferences and workshops; professional requirements such as graduate level course work; and daily, weekly, or monthly staff meetings. It also proved to be the case that many administrators, specialists, and teachers engaged in professional development activities on a personal basis even when they were not a formal part of their CSDC job requirements. Also, much of the training and staff development which was available to CSDC personnel was sponsored by the local districts rather than the centers, and data about number of attendees, lengths of sessions, etc. were not systematically recorded by the CSDCs. In general, it can be said that staff members at all the sites were engaged in a number of training and development activities, both personally and as part of their role in the center. Eleven centers reported that staff members had received some type of inservice training.

The core staff at each CSDC consisted of persons who had been recruited because of prior training and experience in the fields of special education, learning disabilities, or such specialized areas as speech and language therapy. Therefore, preservice training was not necessary for these persons. In all 17 CSDCs, all of the administrators and many of the specialists and teachers had attended national conferences sponsored by NaLDAP, ACLD, and CEC, as well as local, state, and regional meetings and workshops.

Table 12 shows the types of groups, other than staff members, for which CSDCs reported they had provided training opportunities. These

TABLE 12

Types of Persons Receiving Training Through CSDCs

Type of Persons Trained	No. of CSDCs Providing Training
Classroom Teachers	13
Administrators	13
Special Education Teachers/Specialists	14
Parents	12
Community at-large	0
Psychologists/Counselors	7

programs ranged from public lectures by CSDC-sponsored consultants to structured sessions occurring periodically throughout the school year. In many cases, training of administrators, teachers, and specialists at the local school level was a specific part of the CSDC's operational plan; this type of training is described in the case studies.

B. Diagnostic/Prescriptive Procedures

Each of the 17 CSDCs was unique in many ways, but none of the components of the overall program showed as much diversity as did the procedures by which students were selected and served by the projects. To illustrate:

- At one center which served rural schools in a county area, the referral and screening processes and preparation of educational goals were performed by the local districts. CSDC staff then served as a resource for local special education teachers in helping develop the educational objectives and procedures to meet the goals.
- In a state-wide project, training was being provided to regular classroom teachers in early detection and intervention for learning disabled students in kindergarten through second grade. This developmental model pinpointed student deficiencies through observation and testing, and the training then focused on modifying the classroom environment to meet the child's needs.
- In a county-based CSDC, regular teachers from districts throughout the state were invited to the center for three weeks of training in screening, diagnosis, and remediation. CSDC staff were available for follow-up consultation, but direct student services were the responsibility of the local districts.
- A CSDC serving a metropolitan school district was carrying out an experimental project in four of the district's learning disabilities classes. Students in these classes had been selected on the basis of the district's referral, assessment, and placement procedures. CSDC staff assisted the teachers, through special testing procedures, in placing students at their exact skill level in the curriculum without the need for formal educational plans.

- A university-based teacher training program was demonstrating services to children in classes held on the campus. Students were accepted on referral from local districts; the center staff made the screening decision for acceptance into the project, and student-trainees then carried out the diagnostic teaching plan under the supervision of the center staff.

Neither the RFP issued by BEH calling for demonstration center proposals, nor the federal guidelines, had specified the particular model to be demonstrated by each center, and innovative approaches had been encouraged. It is apparent from the foregoing examples that there were major differences in the models which were funded and implemented. Nevertheless, all of the centers were mandated to serve, either directly or indirectly, students who had been identified as learning disabled according to the federal definition. A central task of this study was the examination of a small sample of student records from each of the centers to determine the types of diagnostic and prescriptive procedures being used. This section presents the data found in the records of 133 students randomly selected from the 17 CSDCs.

Early in the present study the decision was made that the student sample should be drawn from those who had been served during the 1975-76 school year since these records would be most readily available. Inasmuch as students entered the program at various times, not solely at the beginning of the school year, an effort was made to document whether their test data were current (1975-76) or had been obtained prior to that time. In the data which follow, a distinction has been made between tests which were administered in September 1976 or later and those which were given prior to September 1976. No tests administered before September of 1974 were considered valid for the purposes of this analysis.

Diagnostic procedures. A major purpose for the inspection of records was to answer the question: To what extent were the children served by the CSDCs diagnosed as learning disabled according to the federal definition--that is, (a) were they of normal intelligence or above, (b) did they have processing disorders, or (c) were their learning problems primarily due to other handicapping conditions which made them ineligible for CSDC services? Exclusionary categories include vision impairment, hearing impairment, motor handicaps, emotional disturbances, environmental disadvantage, and educational disadvantage.

Table 13 shows that, insofar as could be established through existing school/project records, three-fourths of the students were given intelligence tests and half of these students were tested in the 1975-76 school year. Individual achievement tests were administered to two-thirds of the students. One-third of the students were given group achievement tests. Two-thirds of the achievement testing occurred in 1975-76.

Evidently, students were less frequently tested or assessed for the other exclusionary categories; fewer than half of the student records showed such data. Vision, hearing, and motor assessment were most often carried out by medical personnel associated with the school system, while emotional disturbance, environmental disadvantage, and educational disadvantage were typically recorded in anecdotal form by teachers, administrators, or specialists, or included in reviews of emotional, family or educational history. Although this anecdotal information was not based on tests, it often represented the extent of the information available to the schools and CSDCs and was the information on which decisions were made, in lieu of adequate test instruments in these areas.

It is clear from Table 13 that not all students in the projects were tested in all the exclusionary categories. This raises the question of what kinds of test batteries were administered to individual students. Generally, there was no standard pattern within or across projects. Table 14 illustrates the complex nature of the testing patterns. The table includes 130 cases; there were no test results indicated in the records of three students.

In no instance had all of the students from one CSDC been given exactly the same battery, tending to indicate that tests were being selected and administered on an individualized basis.

Tables 15, 16, 17, and 18 summarize the results of the testing in the exclusionary categories. As can be seen in Table 15, dealing with vision, hearing, motor, emotional, environmental, and educational factors, a third

TABLE 13

Percentage of Students in the Sample Who Were Tested or Screened in Each of the Exclusionary Categories (N=133)

Exclusionary Category	Percentage Tested/ Assessed	Remarks
Tested for intellectual functioning	75%	37.5% tested prior to 9/75 37.5% tested 9/75 or later
Tested for evidence of vision impairment	44%	37% tested by medical personnel 7% tested by other staff
Tested for evidence of hearing impairment	45%	38% tested by medical personnel 7% tested by other staff
Assessed for motor handicap	36%	20% determined by physical exam 16% determined by health history
Assessed for emotional disturbance	44%	13% determined by psychological report 31% determined by social/ emotional history
Assessed for environmental disadvantage	38%	38% records contained anecdotal comments about home environment or family history
Assessed for educational disadvantage	29%	29% records contained anecdotal comments about school environment or educational history
Tested for academic achievement		
a. Group tests	34%	12% tested prior to 9/75 22% tested 9/75 or later
b. Individual tests	63%	20% tested prior to 9/75 43% tested 9/75 or later

TABLE 14

Test Patterns for All Students in Sample

No. of Students	IQ	Achievement	Vision	Hearing	Motor	Social/ Emotional	Process	Skills
1	X	X						
1							X	X
1	X		X		X	X	X	
1	X		X	X	X	X	X	X
1		X				X		X
1		X	X		X	X		
1		X				X	X	
1		X					X	
1	X							
1	X					X	X	X
1	X			X	X		X	X
1	X	X			X	X		X
1	X	X	X				X	X
1	X	X				X	X	X
1	X	X	X	X	X			
1	X	X			X			X
1		X	X	X		X	X	X
2		X						X
2	X	X	X			X	X	X
2	X	X	X	X		X	X	X
2		X				X		
2	X	X	X	X		X		X
2		X	X	X				X
2	X	X	X	X	X		X	X
2	X	X	X	X	X	X	X	
2		X	X	X	X	X		

TABLE 14 (continued)

No. of Students	IQ	Achieve-ment	Vision	Hearing	Motor	Social/ Emotional	Process	Skills
2		X				X	X	X
2	X	X	X	X	X	X		X
2		X	X	X	X		X	X
2	X	X		X	X			
2	X	X	X			X		X
2	X	X	X	X		X	X	
2	X	X					X	
3	X		X	X	X	X	X	X
3	X	X			X	X	X	X
3	X	X		X	X	X	X	X
3	X	X	X	X	X	X		
3	X	X				X	X	
3		X				X	X	X
3	X	X	X	X			X	X
4		X					X	X
4	X	X				X		X
4							X	
5		X	X	X		X		X
6	X	X				X		
6								X
8	X	X						X
8	X	X	X	X	X	X	X	X
9	X	X					X	X
9	X		X	X	X		X	X
133	93[a]	105[a]	59	58	48	70[b]	80	98

[a] Does not reflect full number of tests given because a student receiving achievement or IQ tests is recorded once regardless of the variety of such tests given.

[b] This figure includes student records with psychological reports, social/emotional histories, and/or psychological testing.

of those students assessed were considered discrepant or impaired. Of the 48% of the student records which referred to emotional problems, 19% of these problems were thought to be primary (or causal) to the learning problem(s), while 29% were thought to be secondary (or resultant) from the learning problem(s).

It is clear that there are some children in the Learning Disabilities Program who fall in exclusionary categories. There are two possible reasons for this. First, those CSDCs which were primarily teacher training centers did not always have control over which students were selected for services. Many of the records were obtained from local school districts and represented students whose only link with the center was through the teachers who had been trained there.

Second, the fact that a child fell in an exclusionary category would not rule out the possibility that the child was also learning disabled. In those cases where a child exhibited other handicaps, it may have been the case that his or her learning disabilities were considered both important and treatable from an educational point of view, and he or she was therefore provided the special services offered by the center.

Intelligence tests were used in connection with the exclusionary category of mental retardation. Table 16 shows the distribution of test scores for the 95 students who were tested for intellectual functioning. (Where students had been tested with more than one intelligence test, only the most recent test scores were used in compiling the table.) The scores have been grouped according to five point intervals for purposes of display. Data for the WISC-tested students show a wide variation, with about one-sixth of the students falling more than one standard deviation below the mean. Of the sample students, the lowest score noted on any measure was 51 on the Stanford- Binet. Taken as a whole, 82% of the students had intelligence scores of 85 or above and relatively few of the students would seem to be functioning at the level of the mentally retarded. Again, there are some possible reasons why those students falling in the lower ranges have been included despite their low IQ scores. First was the relative lack of control over selection which existed in the teacher training centers. Second, state criteria for defining "mental retardation" varied.

TABLE 15

Percentage of Students Tested Who Were Identified as Having Some Type of Disabling Condition or Impairment Covered by the Exclusionary Categories

Exclusionary Category	N Tested or Screened	Percentage Considered Discrepant or Impaired	Remarks
Vision	59	31%	N does not include 2 cases where test results were not shown.
Hearing	58	12%	N does not include 4 cases where test results were not shown.
Motor	48	13%	N does not include 1 case where test results were not shown.
Emotional	59	42%	18% cited as (primary) cause of learning problems 24% cited as (secondary) result of learning problems
Environmental Disadvantage	51	27%	27% cited as a contributing factor
Educational Disadvantage	38	21%	21% cited as a contributing factor

TABLE 16

Distribution of Intelligence Scores for Sample Students in CSDCs

IQ Scores[a]		Frequency						
Class Interval	Midpoint	Wechsler Intelligence Scale for Children	Wechsler Preschool and Primary Scale of Intelligence	Stanford-Binet Intelligence Scale	Slosson Intelligence Test	Peabody Picture Vocabulary Test	California Test of Mental Maturity	Test of Primary Mental Abilities
118-122	120	2			1			
113-117	115	3			2	1	1	
108-112	110	5		1	1			
103-107	105	8			3	2		
98-102	100	8				2		1
93-97	95	5		1	1			
88-92	90	13	1	1	1	1		
83-87	85	9			3	1		
78-82	80	5		2	2			
73-77	75	5			1			
Below 73		1		1				
	N = 95[b]	64	1	6	15	7	1	1

[a] IQs are not directly comparable due to differences in test content and the populations used for standardization.

[b] Results of five additional intelligence tests were not recorded in a manner which could be tabulated.

TABLE 17

Achievement Test Results

	Individual Measures (N = 80)				Group Measures[a] (N = 26)		
	Reading	Math	Language	Total Test	Reading	Math	Total Test
No. Tested	60	47	30	17	19	16	7
Not Discrepant	35%	55%	33%	24%	21%	25%	0
1-2 Years Discrepant	40%	15%	37%	70%	47%	44%	14%
More Than 2 Years	25%	30%	30%	6%	32%	31%	86%

[a] No language subtests were included in group measures.

TABLE 18

Percentage of Sample Students Receiving Diagnostic Tests and Considered to Have Deficits (N = 133)

	Percentage Tested/ Assessed	Test Date		Indication	
		Prior to 9/75	9/75 or Later	No Deficit	Deficit
Visual Perception Tests	56	14	42	27[a]	69
Auditory Perception Tests	59	14	45	26	74
Haptic Perception Tests	20	7	13	44[b]	52
Fine Motor Skills	54	17	37	29[a]	61
Gross Motor Skills	30	8	22	38[c]	53
Diagnostic Reading	65	23	42	8[d]	86
Diagnostic Math	45	13	32	32	68
Diagnostic Language	55	14	41	35[a]	61
Diagnostic Spelling	31	8	23	23[a]	70
Diagnostic Speech	19	4	15	56	44

[a] Three cases had no data recorded.
[b] One case had no data recorded.
[c] Four cases had no data recorded.
[d] Five cases had no data recorded.

Third, the nature of learning disabilities is such that students might have exhibited unrealistically low scores on language dependent tests. In such cases, the judgment of test administrators may have been that a child's intelligence would be within a normal range if testing occurred after, rather than before, remediation of the learning problem.

The outcomes of achievement testing that was conducted as part of the identification or assessment procedures are not simple to classify. Not only were different achievement tests used, making direct comparisons and groupings difficult due to their varying content, but some were group tests and others were individual tests. Further, the interpretation of the achievement test results was done on a subtest (i.e., reading, mathematics, language) and an overall basis in order to determine whether "discrepancies" existed. Here again, the criteria for identification of discrepancies varied and were not consistently agreed to among the professionals in the field and the CSDCs.*

For purposes of this exploratory study, a discrepancy was defined as one or more years below grade placement when subtest scores were considered as grade-level equivalency. Table 17 shows the separate results for individually and group-administered achievement tests. As these results are examined, it is appropriate to keep in mind that the completeness of the data is a function of whether the CSDCs actually recorded the subtest scores as well as the total scores for all tests used. In terms of reading achievement, a total of 65% of the individually administered and 79% of the group-administered tests revealed discrepancies of at least one grade level. Mathematics subtest results revealed that 45% of the students taking the individually administered tests and 75% of students taking the group administered tests were at least one grade level below their actual grade placement. In language, 67% of the students were at least one grade level lower than placement. Group achievement measures used were:

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*Kinds of discrepancies considered in the field include: (a) discrepancies between grade placement and grade-level equivalent score on achievement tests; (b) discrepancies between chronological age and mental age; (c) discrepancies between measured intellectual potential and measured academic achievement; (d) discrepancies among subtest scores of achievement tests; (e) discrepancies among subtest scores of measures of intellectual potential; and (f) discrepancies between a student's intellectual and academic test scores and those of his immediate peer group (sometimes termed a deviation concept relative to the cultural/environmental context).

Metropolitan Achievement Test (MAT)
California Achievement Test (CAT)
Comprehensive Tests of Basic Skills (CTBS)
SRA Achievement Series

Individual achievement measures used were:

Peabody Individual Achievement Test (PIAT)
Wide Range Achievement Test (WRAT)

Caution should be used in inferring too much from these findings. While it would appear that a fairly large proportion of the students who were tested were found to be discrepant, this proposition is dependent upon whether the particular CSDC chose to administer a particular subtest for a specific, relevant reason (such as the teacher's reason for referral) or whether a broader testing plan was followed in which discrepancies were being noted across subtests in a routine fashion.

Perhaps the most useful information is that which is simplest to state. Namely, most of the sample students received some form of achievement test, in whole or in part, and most of those tested were found to have discrepancies in achievement at least one grade level below their actual placement.

When the question is asked, To what extent were the sample students tested for specific processing and/or language deficits, it is evident that students were selectively rather than uniformly tested depending on the area of concern. Table 18 summarizes the percentage of the students who were tested for visual perception, auditory perception, haptic perception, and fine and gross motor skills. It also shows the percentage of students who received diagnostic tests related to the academic skills of reading, mathematics, language, spelling, and the articulation skill of speech.

As indicated in Table 18, more than half of the students were diagnostically tested for their visual perception. The majority of tests were administered in the 1975-76 school year, and 69% of the students tested were considered to have a deficit in visual perception. For analysis purposes in this study students were counted as having a deficit if either the diagnostic summary or the test materials themselves indicated below-expected performance. The measures of visual perception identified in the student records were:

Beery Developmental Test of Visual-Motor Integration
Bender-Gestalt Test
Benton Visual Retention Test
Birch Belmont Test
Boder Mode of Learning Test (subtest)
Detroit Tests of Learning Aptitude (subtests)
Frostig Developmental Test of Visual Perception
Illinois Test of Psycholinguistic Abilities (subtests)
Jansky-DeHirsch Screening Index (subtests)
Locally developed CSDC tests
Mann-Suiter Tests of Visual Association and Classification
McCarthy Scales of Children's Abilities (subtest)
Motor-Free Visual Perception Test
Santa Clara Developmental Inventory (subtests)
Slingerland's Screening Tests for Identifying Children with Specific Language Disability (subtests)
Valett Developmental Survey of Basic Learning Abilities (subtests)
Visual Aural Digit Span Test

Diagnostic testing of auditory perception occurred for 59% of the sample students. Three times as many students were tested in 1975-76 as prior to that year, and almost three-fourths of those tested were considered to have a deficit. The measures of auditory perception identified in the records included:

Birch Belmont Test
Detroit Tests of Learning Aptitude (subtests)
Durrell Listening-Reading Series (subtests)
Goldman-Fristoe-Woodcock Test of Auditory Discrimination
Illinois Test of Psycholinguistic Abilities (subtest)
Informal Auditory Discrimination Inventory

Jansky-DeHirsch Screening Index (subtests)

Locally developed CSDC tests

Mann-Suiter Auditory Discrimination Screening

McCarthy Scales of Children's Abilities (subtests)

MKM Auditory Letter Recognition Test

Rosner Perceptual Survey (subtest)

Santa Clara Developmental Inventory (subtests)

Slingerland's Screening Tests for Identifying Children with Specific Language Disability (subtests)

Valett Developmental Survey of Basic Learning Abilities (subtests)

Visual Aural Digit Span Test

Wepman Auditory Discrimination Test

Word Discrimination Test by Huelsman

Haptic perception tests were only used for 20% of the students. Twice as many were tested in 1975-76 as prior to that year, and about half were considered to have a deficit in that area. Haptic perception tests included:

Bender-Gestalt Test

Draw-a-Person

Harris Tests of Lateral Dominance

Locally developed CSDC tests

Spatial Orientation Memory Test

Fine motor skills were the focus of diagnostic testing for slightly more than half the students. Twice as many were tested in 1975-76 as prior to that year, and about 60% were thought to have deficits in that area. Fine motor tests included:

Beery Developmental Test of Visual-Motor Integration

Detroit Tests of Learning Aptitude (subtest)

Draw-a-Person

Locally developed CSDC tests

McCarthy Scales of Children's Abilities (subtests)

Gross motor skills were tested in less than a third of the students. Most of these were in 1975-76, and over half the students were considered to have a deficit. Gross motor tests included:

Locally developed CSDC tests

Valett Developmental Survey of Basic Learning Abilities (subtests)

Diagnosis of academic skills followed a generally similar pattern, with the majority of students being tested for reading and language deficits (65% and 55%, respectively); less than half were tested in math (45%) and spelling (31%). In all four categories the bulk of the diagnostic testing occurred in 1975-76.

Sharp variation was noted in the extent to which students' deficits were found in these four areas, however. Of the students tested, over 10 times as many were found to have reading deficits as did not, and math, language, and spelling deficits were found two to three times as often as not.

The diagnostic tests for academic skills included:

Diagnostic Reading

Basic Educational Skills Inventory (subtests)
The Best Test (subtest)
Durrell Analysis of Reading Difficulty
Durrell Listening-Reading Series
Gates-MacGinitie Reading Tests
Gates-McKillop Reading Diagnostic Test
Gilmore Oral Reading Test
Gray Oral Reading Test
Indiana Reading Test
Mann-Suiter Developmental Paragraph Reading Inventory
Merril Reading Program Entry Level Tests
Reading Miscue Inventory
Silvaroli's Informal Reading Inventory
Slossen Oral Reading
Spache Diagnostic Reading Scales
Stanford Diagnostic Reading Test
Subjective Reading Inventory
Van Wetenen Reading Readiness
Woodcock Reading Mastery Tests

Diagnostic Mathematics

Basic Educational Skills Inventory (subtests)
Keymath Diagnostic Arithmetic Test
Locally developed CSDC tests
Parament Math Placement Test
Stanford Diagnostic Arithmetic Test

Language

Assessment of Children's Language Comprehension
Boehm Test of Basic Concepts
Illinois Test of Psycholinguistic Abilities (subtests)
Jansky-DeHirsch Screening Index (subtests)
Locally developed CSDC screening tests
Northwestern Syntax Screening Test
Peabody Picture Vocabulary Test
Santa Clara Developmental Inventory (subtests)
Utah Test of Language Development

Spelling

Betts Informal Reading Inventory (subtest)
Diagnostic Spelling Test by Kottmeyer
Locally developed CSDC tests

The testing for deficits in speech articulation only occurred for 19% of the students. Speech deficits were found in less than half of those tested for it. The only measure used was the Goldman-Fristoe Test of Articulation.

In summary, it would appear that diagnostic testing was largely done in the year in which the student was receiving CSDC services. The principal tests used were those concerned with reading, auditory perception, visual perception, language, and fine motor skills, in that order. The large proportion of deficits found (excepting diagnostic speech) seems to suggest that diagnostic tests were being selectively administered, probably where there was already some preliminary evidence to point toward the particular problem area.

Prescriptive services. When the question is asked, to what extent are the services being delivered by CSDCs related to the results of assessment, there are a number of important characteristics of educational programming which should first be examined. These are listed in Table 19, along with the pertinent findings, as based upon the 113 student records (85%) in the sample which contained written, individualized, educational plans. It is presumed in this analysis that once the CSDC had tested students for specific deficits, results would be translated into diagnostic findings that mentioned the presence of academic deficits (90% of the 113 recorded cases did), processing deficits (59% did), or social/emotional deficits (24% did); and that they would give specific instructions for remediation (90% did). Clearly, the tendency was to write individualized plans that focused on academic deficits and to suggest specific steps for remediation of these (and other) deficits. Overall, there was great variability in the quality of the educational plans. Sometimes it was possible to see consistently complete and appropriate planning within projects; in other cases, the quality of the plan was obviously related to the skill and thoroughness of the teacher who had prepared it. Any general conclusions about quality would be largely subjective and therefore have been avoided in this analysis. Instead, records were examined on the basis of whether they addressed specific diagnosed problems in an understandable and operable way.

TABLE 19

Presence of Important Characteristics of
Educational Programming in Records
of Sample Students (N = 113)[a]

Mentions academic deficit	90%
Mentions processing deficit	59%
Mentions social/emotional problem	24%
Gives specific instructions for remediation in at least one deficit area	90%

[a] Only 113 (85% of 133) educational plans were in written form and available for analysis.

Another important aspect of the services being delivered to students is whether student progress was measured. Table 20 shows whether and what type of assessment was carried out and whether gains were mentioned in the records. It should be noted that this table includes the records of all 133 students in the sample, not just those students who exhibited deficits in the three general areas of assessment (see tables 15, 17, and 18). By far, the most common measurement was progress in the area of academic achievement. What is surprising, in view of the conception of learning disabilities as a processing disorder, was the low incidence of testing to show progress in processing skills. Social/emotional progress was most often measured by locally developed tests or anecdotal evidence that was recorded in the records by CSDC staff member, teachers, or specialists. The standardized tests used to measure social/emotional behavior were the Rorschach, the Children's Apperception Test, and the Piers-Harris Self Concept Scale.

The final column in Table 20 includes only those students for whom there was an indication of positive gain in the records, either in the form of test scores or teacher judgments reflected in anecdotal remarks. It was not possible to verify all gains mentioned in the records nor to quantify them in terms of whether they were educationally significant. Of course, gains for learning disabled children may be much less than gains for the general school population, and in some cases, the learning disabled child's learning problems are so complex or difficult that any amount of progress is considered to be a worthwhile achievement.

A third aspect of the educational plans which relates to assessment was whether the plans were periodically evaluated and revised. Table 21 shows that in 51 instances out of a possible 113 (45% of the records), there was no evidence that the educational plan was subject to evaluation and revision. Where records did reveal some evidence of evaluation and revision, short-term (daily or weekly) review was cited most often (44 of 75 instances). It should be noted that some records indicated that evaluative review and revision occurred on more than one of the time frames shown, which suggests that some flexibility existed at those centers. This table should be considered an underestimate of the amount of evaluation and revision that

TABLE 20

Percentage of Records Reflecting Evidence of Assessment of Student Progress
(N = 133)

Area of Assessment	Type of Assessment					Positive Gain Indicated
	Standardized Test		Locally Developed Test		Anecdotal Evidence	
	End of Year	Pre/Post	End of Year	Pre/Post		
Academic	7	60		41	29	85
Processing Skills	1	11	1	22	17	29
Social/Emotional	2	5		18	17	27

TABLE 21

Numbers of Records Reflecting Evaluation and Revision of Educational Plans (N=113)[a]

Evidence of Evaluation and Revision	No. of Plans
None	51
Daily	19
Weekly	25
Grading Period	8
Yearly	10
Irregularly	13

[a] Table does not add to 113 (the number of educational plans examined) since some plans were revised more than once within a time period.

occured in the educational planning process. In some states, teachers were using daily or weekly planning sheets for individual children, but such sheets were not necessarily placed in the records. The extent to which inadequate planning, as opposed to poor recordkeeping, existed was unclear. However, poor recordkeeping appeared to be a factor in all aspects of the diagnostic and prescriptive processes, making it difficult to correctly judge the appropriateness of the center's activities.

Involvement of multidisciplinary teams in decision-making about student referral, assessment, and educational programming. Examination of the student records showed that teams were used in the majority of instances. Table 22 shows the extent to which one professional person or team of professionals were involved in decision-making. In organizing these data the size of the team was not deemed the critical factor (it is partly an artifact of the size of a school district and its ability to call meetings), but rather the composition of the team was thought to be important. Diversity of views of qualified persons is the essence of the multidisciplinary team concept and helps to assure correct rather than simply expedient decisions.

TABLE 22

Frequency with Which Individuals or Teams are Involved in Referral, Assessment, and Educational Programming Decisions, as Indicated by Student Records

Professional Persons/Teams	Referral N=102[a,b]	Assessment N=124	Educational Programming N=115[b]
One Person Only	43	17	17
(Classroom teacher)	(27)	(1)	(2)
(Special education teacher)	(10)	(14)	(14)
(Administrator)			
(Psychologist)	(5)	(2)	(1)
(Medical)	(1)		
Teams Including only Classroom Teacher and Administrator	9	6	3
Teams Including One Specialist[c]	33	42	56
Teams Including Two or More Specialists	10	59	37
No Data	31	9	18

[a] A screening program was the basis for referral in three instances. The extent of multidisciplinary involvement is unknown; therefore, the three records which indicated "screening" are not included in these data but increase the N.

[b] Four parents were involved alone in referral and two in educational programming. While these cases increase the N of records having data, they are discussed in a separate table relating to parent involvement.

[c] "Specialist" is defined as a special education teacher, psychologist, educational diagnostician, speech or language therapist, medically trained person, and other specially trained professionals.

Where one person was involved in referral, it was most often a classroom teacher and less frequently a special education teacher. Teams in which one specialist was involved were used slightly more than the classroom teacher alone. Teams involving two or more specialists occurred as often in the referral process as did special education teachers alone.

Insofar as assessment is concerned, a large proportion of the decisions were reached by teams including at least one specialist or teams with two or more specialists.

In the third decision-making stage, educationl programming, the tendency for specialists to be involved remained quite high, though there were more teams involving one specialist than two specialists. Table 23 shows the breakdown of individuals in various professional categories who were involved in referral, assessment, and educational programming. Clearly, both classroom and special education teachers played a major role in all phases of the process, with parents and administrators also heavily involved.

TABLE 23

Percent of Cases in Which Different Professional Groups Were Involved in Student Referral, Assessment, and Educational Programming

	Referral(%)	Assessment(%)	Educational Programming(%)
Classroom Teacher	72	63	64
Special Education Teacher	42	72	80
Parent	9	56	43
Administrator	30	41	40
Psychologist	13	42	21
Speech/Hearing Therapist	2	10	9
Other[a]	7	28	30

[a] Includes reading specialists, trained paraprofessionals, counsellors, educational specialist.

When the question is asked, To what extent are parents involved in the decision-making process, Table 24 shows that in only nine of the 102 records was there an indication of parent involvement in the referral process, and four of those were from the parent acting alone. Parents did become more involved in assessment, particularly as members of decision-making teams which included professional specialists (66 of 69 instances). Parents were involved to much the same extent in decisions about educational programs. In 46 of the 49 instances parents were part of teams which also involved specialists. It should be pointed out that this table reflects only the degree of parent involvement in decision-making; it does not include instances where parental permission was obtained to test or place students in the program. Parent permission was being sought for these purposes in every CSDC except those in which local districts were responsible for the referral and screening process. However, it less often happened that parents were included in the decision-making process.

TABLE 24

Extent to Which Parents are Involved in Referral, Assessment, and Educational Programming, as Indicated by Student Records

Parent Involvement	Referral N = 102	Assessment N = 124	Educational Programming N = 115
Parent Only	4		2
Classroom Teacher and Parent		1	
Special Education Teacher and Parent		2	1
Teams including Classroom teacher, Administrator, and Parent	1	3	
Teams including One Specialist and Parent	4	21	21
Teams including Two or More Specialists and Parent		42	25
Total	9	69	49

When the totals in Table 24 are compared to the number of records concerning each decision point, it can be seen that parent involvement was indicated in approximately 9% of the records related to referral, approximately 56% of the records related to assessment, and approximately 43% of the records related to educational programming.

C. Coordination with Other Agencies

The federal guidelines for the Learning Disabilities Program specify that CSDCs shall coordinate their activities with other local agencies, and the extent to which this has occurred was one of the areas included in this study. There are three general measures of such coordination: the status of the centers in state education plans, the existence of formal and informal communication channels between the centers and the wider educational community, and the amount of support that is provided the centers by other organizations, particularly state and local education agencies.

None of the states specifically mentioned the CSDCs in their educational plans. However, in 12 of the 15 states visited, state plans defined learning disabilities as handicapping conditions falling under the state provisions for special education services; in one of these states, learning disabilities were subsumed under the broader category of "educationally handicapped." In one state, the plan was a compilation of state-approved programs submitted by local education agencies, and the CSDC was covered as a part of one of these local plans. Two of the states did not categorically label children having educational handicaps. In these cases, learning disabled children were included among those children defined as requiring special services in order to meet minimal educational objectives. In summary, most of the centers were operating within states which had defined learning disabilities as a categorical area of concern, and services to learning disabled children were provided under state provisions for special education services, with the CSDC as one channel for these services.

An attempt was made to categorize the centers on the basis of their organizational affiliations, e.g., part of a local education agency, part of a state program, etc., as a means of establishing context for examining lines of communication and coordination. It proved impossible to categorize the programs on this basis. For example:

- Three centers reported to county LEAs and served other counties in the region or state.
- Three centers reported to local (city) agencies and served primarily local areas.
- Three centers reported to regional educational units: one served a local area, two served other counties throughout the state.
- Three centers were sponsored by universities: one served a local school district, one served students from several districts at a central location, and one served local districts throughout the state.
- Two centers reported to state agencies and served LEAs throughout the state.
- One center reported to a city LEA and served other county and city LEAs across the state.
- One center operated within a local district and served students in one school.
- One center was operated by a private nonprofit organization, and services were provided to any interested LEA throughout the state and region.

Regardless of their organizational affiliation and service area, each of the centers interacted with a wide variety of agencies at the federal, state, and local level. The degree of these interactions, as reported by project directors, is shown in Table 25. The most frequent contacts were between CSDCs and state and local education agencies and universities. Although only three of the centers were formally affiliated with universities, it is interesting that ten centers reported a great deal of interaction with these institutions. Primarily, this was due to the frequent use of faculty members from schools of education as consultants to the projects and as instructors in the training programs.

Interactions at the federal level occurred less often, and only three centers mentioned that these interactions were with the Bureau of Education

TABLE 25

Number of CSDCs Reporting Various Degrees of Interaction with Other Agencies

Agencies	Degree of Interaction			
	Great Deal	Some	Minimal	Not Mentioned
Federal	3	6	7	1
State	11	3	2	1
Local	13	0	1	3
Universities	10	2	1	4
Civic Groups	3	7	5	2
Other Delivery Systems	3	3	1	10

for the Handicapped. It should be noted that the question which elicited these data was phrased in terms of agencies with which the CSDC most often interacted. Thus, the fact that an agency was not mentioned does not mean there was no interaction--simply that contacts between the CSDC and the agency were not frequent or regular.

As the case studies in the appendix to this volume clearly indicate, all of the centers received significant amounts of financial and other support from a variety of sources. Tables 26 through 30 show how varied and extensive this assistance was. There has been a minimal amount of categorization in these tables in order to convey the full range of helping organizations and the services they provided.

Three things are clear from these tables and from comments made by staff members during interviews.

- There was a considerable amount of reliance on state and local education agencies for such basic resources as personnel, facilities, and materials.
- There were extensive technical assistance services provided by NaLDAP.*

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*The National Learning Disabilities Assistance Project, contracted by BEH to provide technical assistance to all of the centers in the program

TABLE 26

Assistance Received by CSDCs from Federal or National Agencies

Agency	No. of CSDCs Mentioning	Type of Assistance
NaLDAP	17	Consultants Conferences/workshops Information: program evaluation, management of objectives, adolescent and rural programming, national LD issue, dissemination and replication, BEH policy Advice Materials Comment on validation proposal Newsletter Staff development Orientation to larger perspective Communication with other projects Test information
Regional Resource/ Service Centers[a]	11	Help with training plans Materials Inservice training/workshop Consultation Help with difficult diagnosis Ideas Conference facilities Appraisal help
BEH	3	Recommendations Suggestions on proposal preparation Advice
Title I	3	Materials Equipment Summer training program Advice and information
Title III	3	Materials Advice and information Help with dissemination
Title VI-B	1	Funds for diagnosis Inservice training

(continued)

Table 26 (continued)

Agency	No. of CSDCs Mentioning	Type of Assistance
Right to Read	1	Training on reading for LD teachers
ERIC system	1	Information
Technical Assistance Development System	1	Technical assistance
National Association of Supervisors	1	Information on management, group process
Comprehensive Educational Training Act (CETA)	1	Funds for two aides

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[a] During interviews, project personnel referred to a number of types of resource centers, including Regional Resource Centers, Regional Service Centers, Area Learning Resource Centers, Instructional Materials Centers, and Educational Resource Centers. Most of those persons interviewed referred to such centers as state agencies. Where it could be determined that the centers were in fact federally funded, they were included in Table 26. Where such a determination could not be made, the centers were included in Table 27 in line with the designations made by project personnel.

TABLE 27

Assistance Received by CSDCs from State Agencies

Agency	No. of CSDCs Mentioning	Type of Assistance
State Department of Education: Dept. of Special Education/ Exceptional Children	16	Fees for inservice training Workshop expenses Help with replication Information and advice Consultation on legislation and funding Dissemination help Liaison with BEH Materials Salaries for teachers, aides, and resource specialists
Resource Centers	4	Information Technical assistance Materials
State Rehabilitation Commission	2	Vocational counseling Help with individual cases
State Department of Children's Health Services	1	Diagnostic services
Child Development Clinic	1	Medical information
State Department of Services for Visually Handicapped	1	Materials/vision screening
Department of Mental Health	1	Individual case work
Staff Development Institute	1	Dissemination services Materials
Teacher Preparation and Licensing Commission	1	Information

TABLE 28

Assistance Received by CSDCs from Local Agencies

Agency	No. of CSDCs Mentioning	Type of Assistance
Local Education Agencies	15	Space and maintenance services
		Release time for teacher training
		Utilities
		Materials
		Money for itinerant teacher travel
		Salaries for teachers, specialists
		Administrator time
		Facilities for workshops
		Use of school equipment
		Transportation vehicles
		Consultants
		Funds for staff to attend conferences and workshops
		Loans when VI-G funding is late
		Money for lodging of interns
		Fiscal, administrative help
		Inservice training
		Information about other resources
		Use of social worker, psychological services
		Medical exams for students
County Vocational Rehabilitation	3	Counseling
County Mental Health Department	1	Guidance clinic

TABLE 29

Assistance Received by CSDCs from Local Service Groups

Agency	No. of CSDCs Mentioning	Type of Assistance
ACLD and State Affiliates	10	Literature on LD for parents Publicity in newsletter Sponsorship of meetings and conferences Parent referral to CSDC Library of LD materials Films Displays Support for state funding TV and radio spots Money for LD classrooms
PTA and other Parent Groups	6	Volunteers Help with dissemination Materials Money for supplies Educational materials for home use
Kiwanis	6	Materials for parents Workshop for parents and physicians Glasses for students Help with dissemination Money for diagnostic teaching program Support for state funding Help in screening Equipment
Local CEC	2	Sponsored workshop Help with dissemination Support for local funding
Junior Woman's Club	2	Dissemination booklet Materials
Campus Service Organization	2	Help at conference Tutoring
Open Doors	1	Dissemination
Community Service Council	1	Dissemination

(continued)

Table 29 (continued)

Agency	No. of CSDCs Mentioning	Type of Assistance
Church Group	1	Dissemination
Business and Professional Women	1	Dissemination
Sertoma	1	Equipment Dissemination
Association for Retarded Children	1	Services
Association for Retarded Citizens	1	Dissemination
Altrusa	1	Money for out-of-town speakers
Lions Club	1	Tachistoscope
Eagles	1	Money for materials
RSVP	1	Volunteers
Private School	1	Volunteers

TABLE 30

Assistance Received by CSDCs from Other Delivery Systems

Agency	No. of CSDCs Mentioning	Type of Assistance
Mental Health Facilities	11	Family counseling Diagnostic services Treatment Consultation Referrals to CSDC
Welfare/Family Service Agencies	8	Food stamps Financial assistance Paid social service workers in schools Clothing Nutritional advice Referral of child abuse case
Local MDs/Medical Schools	5	Mutual referrals Diagnostic workups Vision checks Neurological exams Pediatric exams Speech and hearing checks Other health services
Health Departments/ Clinics	3	Speech and hearing checks Consultation and evaluation of students Physical exams
Police Department	2	Youth guidance program
Juvenile Court	1	Counselors
Extension Service	1	Help with home environment

- There was varied assistance provided by local service groups and other delivery systems, reflecting (a) outreach on the part of CSDC staff members in communicating the needs of the centers and of individual students and (b) the response of community organizations to this outreach.

When asked which organizations or individuals had proven especially effective in helping the CSDC meet its goals, CSDC staff members most often mentioned the names of individuals within state or local education agencies who had provided advice and guidance. Faculty members at local colleges and universities were mentioned next most frequently.

There was overwhelming support for both the kind and quality of help provided by NaLDAP. The only suggestion for improving this service was that there should be more of it--two of the western sites suggested regional representatives who could provide more frequent on-site consultation. The most noticeable characteristic of the technical assistance service was that it appeared to be highly responsive to local needs. Several CSDCs expressed appreciation for the agency's role as a disseminator of information about activities in other centers; one center cited NaLDAP as its only source of information about federal policies and the future direction of the Learning Disabilities Program.

What is most graphically displayed by Tables 26 through 30 is the large number of special needs which existed in most of the centers--for training, information and advice, special materials, and help with dissemination. It is also apparent from an examination of the tables that the students which the centers were serving had a variety of problems--medical, emotional, and environmental--which were being addressed through coordination with other agencies.

Despite the wide array of services and resources provided the centers by other agencies, there were still a number of unmet needs, which were outlined by CSDC staff members during the interviews. These needs were as varied as the locales served by the CSDCs. However, they can be roughly categorized as follows:

At the federal level: Eight of the CSDCs specifically mentioned the need for better communication from BEH in fiscal matters; five of these centers indicated that they had recieved late notification of funding which impacted on their ability to hire staff and plan and implement their projects. Three of the eight centers cited instances when they had requested approval for budget modifications or the carry-over of funds and had not received prompt responses from BEH. In addition, one center mentioned the need for feedback from BEH about the adequacy of its reports; this center reported that it had not heard from BEH even after requesting such feedback. An additional need at the federal level, mentioned by four CSDCs, was for increased funding to expand dissemination and replication activities.

At the state level: Four CSDCs wanted more support from their state departments of education.

At the local level: Two CSDCs wanted more support from local administrators; one of these centers had a need for better health services for children and more enrichment programs for students in the segregated learning disabilities classrooms. At least one CSDC needed more space, and two needed more and better materials.

At the project level: Four CSDCs needed more operating staff; three needed more specialized help such as evaluators and researchers; and four needed more resource teachers to replicate the model in the schools.

In addition, two CSDCs desired better support from local universities in providing teacher training in learning disabilities, and one CSDC mentioned the need for better informed parents. Only two CSDCs felt that their resources were adequate as is.

D. Dissemination Strategies and Activities

Often, dissemination is so closely related to replication that it is difficult to decide within which area a given activity falls. One center which had not made an operational distinction was surprised that the terms would be distinguished for data collection purposes. To make sure that CSDC staff and AIR interviewers were discussing the same concepts, the following definitions were used during the interviews:

> Dissemination: Provision of information about the project through such methods as one-time workshops, visits to the site, answering requests for information, newspaper publicity, presentations at professional meetings, talks to outside groups, slide/tape presentations, etc. Dissemination does not include ongoing technical assistance; such assistance is defined as replication.
>
> Replication: Provision of ongoing technical assistance provided by the CSDC to the replication site, in which the goal is the implementation of all or major portions of the CSDC model at that site.

Fifteen of the CSDCs had dissemination strategies or objectives spelled out in some detail in their proposals for funding, one CSDC had only vague reference to dissemination, and one center did not mention dissemination in its proposal. Nevertheless, it was found that all 17 CSDCs were in fact carrying out dissemination activities either as a formal project component or on a more informal basis. The balance of this section is a tabulation of data collected at all 17 centers. First, the discussion and tables on the next few pages describe CSDC dissemination activities as explained by project staff during interviews. Next, data based on questionnaire responses from members of target dissemination groups are discussed.

Because the nature and extent of CSDC dissemination activities may well change as the CSDC matures, the data presentations that follow were broken down by age of the projects when it appeared useful and informative to do so. Three groups were identified: those that began before 1972-73--the ">4-year-old" group (2 CSDCs); those that began during 1972-73--the "4-year-old" group (7 CSDCs); and those that began during 1974-75--the "2-year-old" group (8 CSDCs). The age of a given CSDC was not determined by when Title VI-G contract funding began, but rather by when the CSDC or a direct predecessor to it began offering services to learning disabled children.

Interview findings. Table 31 shows the target groups considered most important by CSDCs in their dissemination activities. Educators were key dissemination targets of 16 of the 17 CSDCs; the next two most frequently mentioned target audiences were civic/professional groups and parents.

Table 32 shows the types of information disseminated to each of the target groups, as reported by the CSDCs. Although a wide variety of information was disseminated, there was a heavy emphasis on CSDC services and instructional strategies. There was no noticeable difference in the type of information disseminated according to age of CSDCs.

A wide variety of methods and media were used in dissemination (Table 33). Most CSDCs had prepared brochures, newsletters, and slide presentations and had conducted or participated in conferences and workshops. Some dissemination media and methods reached audiences beyond those mentioned as being of particular importance. For instance, seven CSDCs were written up in newspaper articles and four were mentioned on television or radio, which suggests that many more CSDCs reached the public at large than mentioned that group among their main target audiences. Likewise, 11 CSDCs reported giving presentations at conferences, yet only five had listed university personnel and researchers--frequent conference attendees--among their main target audiences. Again, there proved to be no significant differences in types of information being disseminated according to the age of the centers.

Project personnel were also asked which dissemination procedures they considered to be most effective from among all those which were reported as being used. Nine CSDCs mentioned workshops and conferences, eight mentioned printed media, and eight mentioned personal contacts.

Table 34 summarizes what CSDC staff felt was most needed for improved dissemination. Better systems for disseminating information, improved materials to disseminate, and more staff to undertake dissemination were the three areas in which needs were cited.

TABLE 31

Number of CSDCs Selecting Each of Six Target Groups as Important for Dissemination

Age of CSDCs	Target Groups					
	Educators[a]	Civic/ Professional Groups	Parents	University Personnel/ Researchers	Federal and/or State Governments[b]	Public at Large
>4 years (N=2)	2	1	0	0	0	0
4 years (N=7)	7	2	2	2	2	1
2 years (N=8)	7	6	6	3	2	1
Total	16	9	8	5	4	2

[a] Included are local school administrators, supervisory personnel, teachers, counselors, and other educators who provide direct services to students.

[b] Two CSDCs in the 2-year group and one in the 4-year group mentioned both federal and state governments; the other 4-year CSDC mentioned only the state.

TABLE 32

Number of CSDCs Disseminating Each Type of Information to the Various Target Groups

Type of Information Disseminated	Target Groups					
	Educators	Civic/ Professional Groups	Parents	University Personnel/ Researchers	Federal and State Governments	Public at Large
CSDC Project Information	15	9	8	4	4	2
Instructional Strategies/ Materials	12	7	5	5	4	2
Nature of Learning Disabilities	9	4	5	2	1	1
Mainstreaming Learning Disabled Children	3	2	2	2	3	0
Non-CSDC Services for Learning Disabled Children	4	2	2	1	0	0
State and Federal Laws Pertaining to Learning Disabilities	3	2	2	1	1	0
Research Results	2	1	0	2	0	0

TABLE 33

Dissemination Media or Methods Reported by CSDCs

Dissemination Media/ Methods	No. of CSDCs Reporting	Dissemination Media/ Methods	No. of CSDCs Reporting
Personal Contacts	44	**Print Media**	39
Conferences	11	Brochures/Pamphlets	14
Lecture/Presentations	11	Newsletters	9
Workshops	8	Newspaper Articles	7
Letters/Telephone	2	Professional Publications	4
Other Personal Contacts	12	Proposals/Reports	2
		Other Print	3
Nonprint Media	25	**Through Other Organizations**[a]	15
Slide/Tape Presentation	12	ACLD	4
Television/Radio	4	PTA	3
Videotapes/Films	4	Other Organizations	8
Other Nonprint	5		
Instructional Materials/Modules	4	**Advisory Councils**	4

[a] Most dissemination via ACLD and PTAs was through conferences, workshops, and letters and is included under Personal Contacts; this category includes such media as newsletters or programs sponsored by these organizations on behalf of the CSDC.

TABLE 34

Needs Cited by CSDCs for Improved Dissemination

Need	No. of CSDCs Mentioning
Systems Related	
More personal contact	3
Better communcations network	3
More workshops/presentations	2
Make dissemination a major objective	2
More use of professional journals	1
More BEH assistance	1
More effort to get community understanding	1
Total	13
Materials Related	
Audiovisual materials	4
Printed materials (brochures, etc.)	3
Solid base of useful data to disseminate	1
Money to reproduce materials	1
Total	9
Staff Related	
Staff skilled in communications	3
More time for dissemination	2
More staff to participate in dissemination activities	2
Total	7
No Needs	2

Questionnaire responses of members of target audiences. The original plans for the study called for dissemination questionnaires to be sent to a sample of 30 persons within each CSDC's state. Four CSDCs supplied lists with at least 30 names; ten CSDCs supplied lists that included from 8 to 26 names. These lists may seem short given the extensiveness of the dissemination efforts reported by CSDC staff. The reason appeared to be that CSDC staff could not practically record names and addresses of those attending workshops, conferences, etc., nor did they consistently log visitors, letters, and telephone conversations. Three centers did not provide useable lists, since they did not include the names and addresses of any in-state persons.

Before the questionnaires were sent from AIR, each project director was asked the name by which their center was most likely to be known locally, since "Child Service Demonstration Center" was not used in every state. The site-specific names which were provided were typed on the questionnaires prior to mailing. The forms contained no information that would personally identify the respondents.

Altogether, 299 questionnaires were distributed, of which 199 (67%) were returned; 154 of the respondents indicated that they had heard of the CSDC. Questionnaire return rates are summarized in Table 35. The percentage of questionnaires returned was highest for the oldest CSDCs, as was the percentage of persons responding that they had heard of the CSDC. However, the small number of CSDCs in this group limits the generalizability of this finding. What is most notable is that the 15 centers in the 4-year

TABLE 35

Dissemination Questionnaire Return Rates

Age of CSDC	Number Sent	% Return Overall	% Who Had Heard of CSDC
>4 years (N=2)	36	92	89
4 years (N=7)	111	61	45
2 years (N=8)	152	64	47
Total	299	67	52

and 2-year groups had only been heard of by the target audiences of dissemination less than half the time, while the two centers that had been in existence over 4 years had been heard of by nearly 90% of their target audiences.

Table 36 shows the ways in which members of each of four target groups reported hearing about the CSDC. The target groups are educational administrators (at both the local and state levels), teachers (mostly in special education, but including some regular classroom teachers), other professionals (primarily school counselors and psychologists), and parents of learning disabled children.

The 154 respondents who had heard of the CSDC averaged slightly more than two contacts each, with the majority (78%) involving direct contact of some sort between the respondent and a CSDC staff member. The questionnaires asked only the ways in which respondents had heard, not when they had heard. Therefore, it was not possible to break out those data that applied to the 1975-76 funding period from those that applied to earlier years. An analysis of variance revealed no differences in the number of ways persons had heard of the CSDC as a function of target group, nor were there differences as a function of the age of the project.

Respondents were also asked to indicate the types of information they had received. Table 37 shows that information about the nature of learning disabilities was the most frequently received type of information for all target groups.

Finally, the questionnaire provided space for respondents to indicate if the information they had received was adequate for their purposes. Overall, 83% of the responses were "yes." Satisfaction was about the same for each type of information (range: 79% for information about state and local organizations to 86% for information about a particular child). Members of each respondent category were equally likely to express satisfaction (range: 77% for teachers to 84% for administrators). (Parents, who as a group registered only four opinions--two of adequacy and two of inadequacy--were not included in the overall percentages.) With satisfaction so high, very few respondents indicated additional information that they would like to receive, even though the questionnaire provided space for them to do so.

TABLE 36

Number of Persons Receiving Information from the CSDCs in Various Ways

Target Group	Indirect Contact with CSDC Staff		Direct Contact with CSDC Staff				
	Mailings/ Newsletters	Public Media	Professional Meetings	Workshops/ Conferences	Parent Meetings	Community Group Meetings	Other Personal Contact (phone, letters, etc.)
Educational Administrators (N=70)	21	10	43	26	2	2	41
Teachers (N=28)	11	5	15	9	5	4	13
Other Professionals (N=34)	11	4	22	17	8	1	23
Parents (N=3)	2	1	1	1	1	2	0
Multiple Categories (N=14)[a]	4	4	10	5	1	0	8
Did not indicate category (N=5)	1	0	2	1	0	0	2
Total (N=154)	50	24	93	59	17	9	87

[a] People who indicated membership in more than one category

TABLE 37

Types of Information Received by Dissemination Target Groups

Target Group	Information About Nature of Learning Disabilities	Information About Local Learning Disabilities Services	Information About State/National Learning Disabilities Organization	Information About A Particular Learning Disabled Child
Educational Administrators (N=70)	47	29	26	15
Teachers (N=28)	24	9	9	11
Other Professionals (N=34)	23	14	11	10
Parents (N=3)	3	1	0	0
Multiple Categories (N=14)[a]	11	10	6	6
Did not indicate category (N=5)	2	0	1	1
Total (N=154)	110	63	53	43

[a] People who indicated membership in more than one category

E. Replication Strategies and Activities

Replication--the process of providing ongoing technical assistance to other sites in duplicating part or all of the CSDC services--had occurred in ten of the centers. However, the priority given to replication activities varied across sites. In some states, the prime reason for the center's existence was to introduce a viable learning disabilities program to unserved areas. In other states, replication was considered to be desirable but secondary to the primary goal of providing direct student services and was pursued only when staff members had time to consult with other districts.

Seven of the CSDCs did not have replication as an objective in 1975-76. Four of these CSDCs reported either that it was too early in the life of the center to replicate or that other areas in the state were not ready to implement the program. One center indicated that the uncertainty about whether the CSDC would be refunded had discouraged replication sites from committing themselves, since these sites could not be sure of receiving ongoing technical assistance during the replication process. Another center mentioned local apathy and resistance as the reason for not having been able to establish replication projects. The seventh center, which had operated within one school for only two years, was ending and had no plans for replication.

The extensiveness of replication activities varied greatly across the ten centers. Full project replication had occurred in as few as two and as many as eight districts within a state. One center reported that it had stimulated partial replication of the project model in 35 school districts. Three of the ten replicating centers were concentrating their efforts in the local or adjacent districts, while seven were providing services across regional or statewide areas.

Replication activities most often involved the training of regular and special education teachers in the use of diagnostic and prescriptive materials and procedures. In some cases, centers emphasized the provision of technical assistance for program implementation to areas where qualified learning disabilities teachers were already available. The case studies in the appendix describe specific activities at each of the ten replicating centers. Three examples, drawn from the case studies, illustrate the diversity of the replication components.

- Site A offered replication training to districts throughout the state. The first contact was made by the interested district, acting on information received through the CSDC's dissemination channels. The CSDC coordinator then conducted an informal needs assessment with the potential site, followed by a half-day awareness visit to the center by the district. Next, a second needs assessment was conducted at the replication site by the CSDC coordinator, and a written contract specifying the type of training to be provided by the center was signed. Training included four components: (a) the use of a van as a mobile resource center in rural areas; (b) in-depth student assessment, educational planning, intervention, and evaluation; (c) organization and use of resource materials; and (d) inservice training. Teams from the replicating site, including administrators, special educators, and classroom teachers, spent approximately one week at the center. Follow-up service included the monitoring of administrative and educational plans by the CSDC staff and visits to the replication site.

- At Site B, CSDC staff members provided technical assistance to districts across the state in all areas of program development: student assessment, materials selection, tracking of student progress, due process requirements, and involvement of local school personnel. Districts were selected on the basis of proposals submitted to the state's Division of Special Education. Early in the school year, CSDC staff members made monthly visits to each site; visits became less frequent as the local program developed and the local learning disabilities supervisor was able to assume more administrative responsibility. Progress at each site was monitored through the Management by Objectives technique, and written reports were submitted to the districts following each visit. During site visits, meetings were held with local personnel to define their roles and responsibilities, to review the reporting requirements for the project, and to discuss instructional materials and establish criteria for selecting students for the projects. Student records were examined to see that they were current and complete and that educational programming was appropriate. CSDC staff members also were available to districts throughout the year on a consulting basis.

- Located in a sparsely populated region with few teachers trained in special education, Site P was replicating its project in three high schools. School districts contracted with the CSDC for its services, which were carried out by itinerant resource specialists from the center. These specialists diagnosed student learning problems, prepared educational plans, and then trained local paraprofessionals to carry out the plans in the home schools. Paraprofessional training consisted of one week of preservice training at the center, inservice workshops throughout the year, and weekly on-the-job supervision from the resource specialists. Some of the training topics were learning disabilities characteristics, student evaluation, task analysis, modification of reading behavior, counseling and confidentiality, public relations, and orientation to the materials center.

Because of the uniquenesses of replication strategies, few meaningful comparisons could be made about the process itself across all ten CSDCs involved in replication activities. Therefore, the tables in this section are necessarily quite general.

Table 38 shows the type of agencies which initiated the replication process within the ten states. Although five centers provided services at the invitation of local schools or districts, in every case the local schools had heard of the CSDC through its own dissemination activities. These included college courses taught by CSDC personnel; "awareness" brochures distributed at local, state, and national conferences and conventions; and other professional and personal contacts, often through the auspices of the state education agency or district superintendents.

TABLE 38

Agencies Initiating the Replication Process

Initiator	No. of CSDCs Using This Method
Local replicating site	5
CSDC	2
CSDC/state education agency combined	2
State education agency	1

Most of the centers had established specific criteria which had to be met by local sites before replication services could begin. The major requirements reported by the CSDCs fell into four general categories:

- Agreement by local districts to commit resources to the project (mentioned by nine CSDCs)

  These commitments included implementation of teacher training, evaluation of training and submission of data to the CSDC, commitment of teacher time to the project, and agreement to hire specialized teachers.

- Expressions of interest and support on the part of local districts (mentioned by six CSDCs)

  Specifically, the centers were interested in local agreement to participate in program planning, local commitment to continue the project after the Title VI-G project ended, local school board support, local readiness and willingness to innovate, and positive administrator attitudes.

- Demographic characteristics of replication sites (mentioned by three CSDCs)

  These were proximity to the CSDC, and other geographic considerations (e.g., strategic locations for demonstration purposes).

- State funding for the local project (mentioned by one CSDC)

One CSDC reported that local districts contracted with a regional special education agency for replication services; the CSDC itself imposed no selection criteria. It should be underscored that an implicit requirement in every case was the availability of local professional personnel and resources for carrying out the program. Except for the cost of CSDC staff time and travel, most expenses were borne by the replicating sites.

As shown in Table 39, a full range of technical assistance was provided by nearly all of the ten CSDCs which were replicating. At the same time, they mentioned a variety of resources which they felt were needed for more effective replication efforts. These are shown in Table 40. Not surprisingly, the major expressed need was for bigger CSDC staffs to assist the replication sites, expressed in terms of people, money, and time.

TABLE 39

CSDC Services Offered to Replication Sites

Type of Service	No. of CSDCs Providing Service at Start-Up	No. of CSDCs Providing Service on Continuing Basis
Workshop/staff training	9	9
Assessment materials	9	7
Instructional materials	8	9
Direct technical assistance in:		
Planning and management	9	2
Instruction	8	8
Evaluation	8	8
Assessment (diagnostic testing)	6	9
Program management	1	8

TABLE 40

Resources Needed for More Effective Replication

Resource	No. of CSDCs Mentioning
More CSDC staff/money/time	8
More LD teachers/specialists/aides at replication sites	3
More (or more appropriate) materials	3
Better communication between CSDC and local staff	3
More cooperation/leadership from state education agency	1
More staff training	1
Title VI-G field agents	1
Ways to satisfy local requirements for medical exams and case conferences	1

All 17 of the centers were asked what they felt were the major obstacles to replication. Twelve of the centers responded; their answers are tabulated in Table 41. The main obstacles were lack of understanding about and apathy toward the project at the local level, mentioned by six and seven centers respectively. It was generally felt that these obstacles could be overcome, given enough time to fully establish the model and disseminate information about it to other educators in the state. Several project directors indicated that the replication process cannot be started with any hope of success until the third or fourth year of a project.

TABLE 41

Major Obstacles to Replication

Obstacle	No. of CSDCs Mentioning
Apathy/resistance of local teachers and administrators	7
Lack of knowledge/understanding at the local sites	6
Lack of CSDC and local resources (time, personnel, materials, local funds)	6
Difficulty of altering model to fit local needs	2
Distance between CSDC and target schools	2
Too much local reliance on CSDC	1
Changes in local administration	1

F. Parent Involvement

One of the broad goals of the Learning Disabilities Program is that parents of learning disabled children be made aware of and involved in the activities of the CSDCs. To this end, parent participation is specifically mentioned in the federal guidelines for Title VI-G funding. At the project level this may be accomplished by formal training sessions, scheduled parent meetings, dissemination of information about learning disabilities and the purpose of the project, and frequent contacts between parents and the CSDC staff.

The data for this aspect of the study were based on interviews aimed at determining the general level of parent awareness, involvement, and support across the CSDC projects. A Parent Interview Guide was developed to provide information in the following areas: parents' understanding of the child's learning problem, first knowledge of the project, awareness of the instructional program, parent training and/or meetings provided by the project, amount of contact between parents and staff, and parent's opinion of the project. The interviews were conducted with parents by AIR site visitors. At CSDCs where parents were not familiar with the project as a

Child Service Demonstration Center, familiar terms such as "the resource room," "the special class," or "work with the resource teacher" were used instead. Use of the term "learning disabilities" was avoided unless introduced by the parents. Interviewers also referred to local staff by name to make sure that parents understood the context for the questions. Interviews were expected to take from 20 to 30 minutes but in some cases ran longer at the parents' option.

Parent awareness. In response to the question designed to find out if parents had known about their children's problems before they were identified by the project, 68% of the parents said that they were already aware of the problem, and 31% were not aware of the problem prior to the project. One parent did not answer this question.

In response to the question of how they first learned of the project, 69% of the parents responded that the initial contact was made by someone from the school or from the project. Generally, this contact was by phone or letter to explain something about the project and/or to request permission to begin an assessment of the child to determine eligibility. Twenty percent of the parents said that they had initiated contact with the school or the project. Some of these parents were exploring available services and were referred to the project by another source (e.g., ACLD, doctor). Three percent of the parents had heard of the project through informal, word of mouth contact; 3% had learned of it through the media; and 1% had heard of it from the child. Four percent of the parents did not answer this question.

Parents were asked if they had received an understandable explanation of their children's learning problem, if they could explain what the project was trying to achieve with their children, and what the instructional program involved. Responses to these questions were categorized into three levels: no awareness, general awareness, and specific awareness. The results are shown in Table 42. Examples of what parents with specific understanding of the problem said were: "Auditory discrimination problem;" "perseverates;" "dyslexic;" "eyes need retraining;" "letter-number recognition;" "when reading, can't understand major ideas." Specific goals cited were "organizing a paper;" "make up words to practice certain sounds;"

TABLE 42

Percentage of Parents Indicating Awareness of Learning Problem and of Educational Programming (N=112)

	No Awareness	General Awareness	Specific Awareness
Understanding of Child's Problem	8	53	39
Awareness of Instructional Goals	20	36	44
Awareness of Type and/or Amount of Instruction	22	16	62[a]

[a] These parents specifically described their children's schedule, and 68% of parents in this category also described specific instructional activities.

"tell stories from a picture;" "develop manual dexterity skills."

Parents with a general level of awareness made such comments as "slow learner;" "can't follow instructions;" "has trouble reading and spelling," when describing the problem; and "help him catch up in mathematics;" "remediate skills;" "to bring them up to grade level" when discussing instructional goals. Parents with no understanding were unable to discuss the problem meaningfully and had no idea what kind of instruction their children were receiving.

It is evident in Table 42 that the level of parent understanding is proportionately higher regarding instructional activities than it is regarding goals; similarly, there is a higher level of understanding of goals than there is of the nature of the child's problem. This raises the question of how a parent can understand the instructional program without first understanding the problems and the goals. It appears that in communicating with parents, the centers have tended not to focus on the description and discussion of the child's problem, but rather on the activities (and to a lesser extent the goals) that are believed to be the key to unlocking the problem. Reanalysis of the data showed that of the 68 parents who either had no understanding or only a general understanding of the child's problem, 15 parents did feel they had been well informed about goals (included in the specific awareness group) and 34 of them, fully half, had been well informed about instructional activities (included in the specific awareness group). In other words, emphasis on parent understanding centers on what is being done for the child rather than what is wrong with the child.

It was stated earlier that 68% of all parents said that they were aware of a learning problem in their children prior to their enrollment in a project. Table 42 shows that at the time of the interviews, a total of 92% of the parents expressed either general awareness (53%) or specific awareness (39%) of their children's learning problems. This 24% growth suggests that the CSDCs did in fact foster increased understanding of learning disabilities on the part of parents.

Parent involvement. To get more information about parents' involvement with the children's instruction, parents were asked if they volunteered in class or worked with their children at home on different kinds of activities. The responses are shown in Table 43. Many parents responded in more than one category.

TABLE 43

Parent Involvement with Children's Instruction (N=112)

Type of Involvement	Number of Responses
Helps at home with planned activities suggested by project staff	50
Helps at home with own activities	40
Doesn't help[a]	27
Solicits suggestions from project staff	13
Volunteers in class	10
Helps with other activities	7
Doesn't want to interfere	5

[a] Some reasons given by parents for not helping were "get too emotionally involved;" "no time, too many other children;" "no materials sent;" "teacher said not to help;" "child resists help."

There were 55 parents who reported some kind of project-initiated, direct involvement with their children's instruction (either help at home with planned activities or volunteering in the classroom). This group was compared with the rest of the sample to see if the parents who were directly involved with their children's instruction had a better understanding of their learning problems than did those parents who were not so involved. Table 44 shows that there was a clear difference between the two groups.

TABLE 44

Level of Understanding of Child's Problem By Parents

Parent Group	None	General	Specific
Parents Directly Involved with Instruction (N=55)	4%	38%	58%
Parents not Directly Involved with Instruction (N=57)	12%	67%	21%

The relationship between parent involvement and level of understanding is a complex one, and interpreting these data should be done carefully. The differences between the two groups of parents shown in Table 44 cannot be attributed solely to activities of the project, since three-quarters of the parents directly involved with instruction also were aware that their children had learning problems before they were enrolled in a project. These parents might be involved for reasons stemming from their own personal motivations rather than as a result of the project's recruitment efforts. The underlying issue, therefore, may be why some parents get personally involved with their children's education, while others do not. Such a question could not be addressed by this study.

CSDC-initiated contacts. A series of interview questions revealed the type and frequency of contact between project staff and parents. Almost all parents (93%) had been contacted for routine purposes, such as to obtain their permission for testing, to inform them that their child could be or had been enrolled in the project, or to hold a routine conference at the end of a marking period. Although staff at all sites seemed to be acutely aware of due process requirements, a few parents (5%) reported that they had never been contacted. (They could, of course, have forgotten since for some parents the contact would have occurred some months earlier.)

The large majority of parents (74%) reported contacts with CSDC staff for child-related problems or other special conferences. Almost half of the parents said that they had many contacts (more than six or seven) with project staff, 23% had few contacts (between two and five), and 28% had seldom been contacted (less than twice).

Questions about CSDC-sponsored parent meetings or training sessions were asked to determine if projects had initiated informational programs for parents. Additional information about whether parents received suggestions from staff for helping their children at home was taken from comments made during interviews. Table 45 presents the number of parents involved with project-initiated activities. These issues are also discussed in some detail in the case studies.

TABLE 45

Number of Parents Involved with Project-Initiated Activities (N=112)

Activity	Frequency of Involvement Never (or None Offered)	 Seldom	 Often
Parent meetings[a]	94	10	4
Parent training[a]	91	2	10
Home instruction	45	22	45

[a] Not all parents responded to questions about parent meetings or parent training.

During 1975-76, ten CSDCs offered some kind of formal or informal parent training, meetings, or workshops. The duration and focus of the sessions varied significantly and included one-time open houses, periodic meetings, minicourses offered on a regular basis, and individualized training/counseling sessions in the home. Most of the parent training activities were characterized by some kind of agenda or preestablished topics (e.g., vocational planning, home tutoring techniques, implications of legislation, behavior modification techniques, communication skills). Some were conducted by CSDC staff, and others involved community and/or other resource persons. Parents and other target groups were informed of project-sponsored activities by means of personal invitations, announcements in newsletters, and/or telephone calls. Attendance at these functions was sometimes a problem. In one case, long distances that parents had to travel was given as the reason for a disappointing turnout. In another instance, the content was not relevant to some parents, a problem which the center plans to rectify in the future. At a third CSDC, there was some feeling that parents had not been given sufficient information about the purposes of the meetings. With the exception of the two preschool parent education programs, and some open houses which occurred during the day, training and meetings were scheduled in the evenings. One-to-one conferences with parents were held at times convenient to all parties involved.

To explore the impact of parent training and/or meetings, parents from CSDCs where meetings or training programs were offered were compared with parents from CSDCs not having planned training or meetings. The comparison was in four areas: parents' level of understanding of the learning problem, their awareness of instructional goals, their awareness of programming, and direct involvement with their children's instruction. Where CSDC-sponsored training sessions or meetings were held, parents were somewhat more aware of their children's problems and educational programs and more involved in instruction than were the parents for whom no training had been offered. Differences between the two groups ranged from 14% to 25%. This finding indicates that CSDCs wishing to elevate levels of awareness and involvement of their parents might focus on offering parent training or regular meetings with parents.

Parents were asked what they thought their children felt about the project and how children demonstrated their attitudes. Some statements made by parents who felt their children enjoyed the project very much were, "My child seems to enjoy school more now;" "doesn't misbehave at home;" "gets up in the morning;" "will do homework without arguing;" and quite frequently, "tells me so." Parents' perceptions of their children's attitudes about the project and the types of changes that parents noticed in their children are summarized in the following two tables.

TABLE 46

Summary of Parents' Perceptions of Children's Attitudes about Projects

Perception	Number of Responses
Enjoys project very much	83
Tolerates project	15
No opinion or can't say	11
Doesn't like project	2

TABLE 47

Summary of Changes in Children Noticed by Parents

Change	Number of Responses
Academic improvement	84
Improved attitude toward school and school work	59
Increased self-confidence	37
Improved behavior	29
Increased frustration tolerance	15

Again, many parents answered in more than one area. Ten other parents noticed changes in their children's behavior but would not attribute them solely to the project. An additional six parents had noticed no change; only one parent felt that the child had regressed since participation in the project.

A substantial number of parents (83%) expressed support for the projects; 15% did not express an opinion, and only 2% had a negative opinion of the projects. In one case, the dissatisfaction was directed primarily at the teacher, and the other parent said that she had received no written communication from the project and that she was unhappy with classroom structure and discipline.

At the end of the interview, parents were asked to specify what they felt was particularly good about the project and what they felt could be improved. Responses are represented in Tables 48 and 49.

TABLE 48

Summary of Project Strengths as Perceived by Parents

Strengths	Number of Responses
Individual staff members	49
Increased understanding of learning disabilities and of what to expect from their children	35
Specific features of a project (e.g., classroom management techniques, scheduling, child evaluation)	35
Small classes, individual instruction, or extra help	26

Eight parents responded that they did not know enough about the project to specify its strengths; six parents did not answer this item.

TABLE 49

Summary of Areas for Improvement as Perceived by Parents

Area for Improvement	Number of Responses
Specific features of a project (e.g., lack of or more frequent progress reports, communication from staff, basic information about the project)	23
Expanded services (e.g., more classes and teachers, longer periods, follow-on programming into higher grades)	19
Lack of or improvement in parent advisory group, parent education	7

Eight parents said they did not know enough about the project to suggest improvements; 49 gave no answer to this item. Other needed improvements discussed by parents related more to their personal feelings about the educational system than to the project.

Comments made by parents directly involved with instructional activities and by parents not directly involved were reviewed to determine if there were any differences between the kind and extent of comments made by the two groups. Half of the *involved* parents cited both strengths and weaknesses of projects, as compared to one-third of the parents *not directly* involved with their children's instruction. However, *strengths* were specified by more of the non-involved parents (49%) than were specified by the involved parents (40%). The same difference existed between the groups in their comments about areas of needed improvement, that is, more non-involved parent perceived ways of improving the projects than did involved parents.

The AIR interviewers came away from their meetings with parents with some strong impressions that are not conveyed by the numbers and percentages shown in the tables. The first impression is that nearly all the parents were deeply concerned about their children and the fact that they had not been succeeding in school. Many expressed a lack of trust in the schools because of previous difficulty in trying to get help for their children. Several had received the message over the years that their children were retarded, and the project had provided the first confirmation of their own convictions that this was not so. A number of the parents expressed a great sense of relief that they or the child were not somehow to blame for the learning problem. Several parents also told of experiencing the frustration of knowing that something was wrong, but of not knowing where to look for help. Several parents said that they had stopped punishing their children for being lazy, stubborn, or stupid, now that they understood the child better. For these parents, the CSDC had provided a nonstigmatizing explanation of and solution to the problem. Many parents strongly recommended early identification of learning disabled children to save other parents from the experiences they and their children had been through. These data could not be categorized and displayed in a table; nevertheless, they are presented as important findings of this study.

G. Advisory Council Participation

The purpose of the Advisory Councils is to assist the CSDCs in active planning, implementation, dissemination, and replication of project activities. In assessing the impact the Councils had on CSDCs, it was important to determine the kinds of activities Council members participated in, the extent of their involvement, and their perceptions of the worth of these activities in the actual operation of CSDCs. The questionnaire that was developed for Advisory Council members provided information about the role, importance, and effectiveness of the Councils in those centers which utilized them.

Eleven CSDCs had appointed Advisory Councils in 1975-76. Another center had no formal Council, but instead used the services of a group of consultants from whose expertise the CSDC staff drew as needed. Of the five remaining CSDCs which did not have Councils, two of the centers were in California and thus could use the Council for the statewide CSDC system. A third center tried to form a Council but was unable to do so; as the project extended its services statewide, the staff could not find people who were willing to serve. A fourth CSDC, in its fourth year of funding in 1975-76, had disbanded its Council and consulted with some former Council members as the need arose. The fifth CSDC was a part of the state Division of Special Education and received advice and assistance from existing groups, therefore seeing no need to establish a separate Council. A total of 13 Councils, including the 11 which had been appointed, California's statewide Council, and the group which operated on a consulting basis, are represented in this analysis. The Councils ranged in size from 4 to 26 members, with an average of about 13.

The CSDCs provided AIR with lists of their Advisory Council members; 165 persons were identified, and each was sent a questionnaire. Seventy-six persons (46%) replied to the questionnaire. Of these, 65 persons completed the form; ten persons indicated that they were not aware of being on a Council; and one responded that his service was so brief that it would be inappropriate to answer the questions. Across the Councils, the percentage of members responding ranged from 14% to 100%. Those Councils with response rates above the overall rate of 46% were classified "high-responder Councils" (N=8) for purposes of data analysis, and the others were classified "low-responder Councils" (N=5).

Composition of the Councils. For the purposes of this report, Council members were grouped into four categories: education professional*, parent of a learning disabled child, medical and related professional, and college or university professor. Table 50 shows the number of Council members in each category. Three respondents indicated membership in more than one group; their responses were recorded in each group for which they indicated membership.

TABLE 50

Advisory Council Membership[a]

Category	Number
Education Professional	36
Medical and Related Professional	13
College/University Professor	11
Parent of a learning disabled child	9

[a] Persons who responded "other" and specified the nature of their involvement were placed into one of these categories.

As shown in the table, the majority of members were elementary or secondary educators, who outnumbered the totals of all the other categories combined. Only nine parents (three of whom were also educators) were among the respondents--less than one per panel; of these, only two had children in a CSDC program. Most Council members (69%) reported having professional experience in working with learning disabled children.

Advisory Council involvement in CSDC activities. Two sources of data provided information about the frequency of Advisory Council meetings: questionnaire responses from the Council members, and remarks made by CSDC staff during interviews. Thirty-five of the 61 council members (57%) responding to the question about frequency of council meetings indicated at least quarterly meetings; of these, 20 specified that they met with CSDC staff once a month. Four reported meeting semiyearly, three yearly, and six at some other frequency. None said that they had not met.

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*This term has been used for the sake of brevity. It includes administrators, teachers, and specialists at the elementary and secondary levels.

Responses of Council members generally agreed with those of CSDC staff. Ten Council members indicated less frequent meetings than did CSDC staff; they may have been reporting how often they attended meetings, rather than how often meetings were held. Forty-eight Council members completed the question on attendance at meetings; of these 79% indicated that most members attended. Forty-four of 46 members answering the question about the importance of topics discussed indicated that topics were either almost always important (28 respondents) or usually important (16 respondents). These data suggest that Council members who were involved found their participation worthwhile; those Council members who met with CSDC staff at all tended to do so frequently and to rate the topics discussed as important. On the other hand, 21 of the 76 Council members who replied reported little or no involvement with the CSDCs, including 11 who wrote that they were unaware even of being Council members.

Table 51 shows the number of Advisory Council members reporting each of ten types of involvement with the CSDC. The principal activity in which more than half of the Advisory Council members engaged was training. Helping to write or review proposals, review and comment on CSDC activities, observing the CSDC program, and serving as liaison agents were also frequent activities. Typically, Council members reported engaging in three or more activities related to the CSDC.

Chi-square tests were used to compare the response of education professionals with the pooled response of parents, medical and related professionals, and college and university professors. (Responses from high and low responding Councils were pooled for this analysis.*) Only in the area of "observing the CSDC program" was a significant difference found ($p < .05$);

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*Pooling was necessary to keep the expected frequency above 5 in each cell. Even with pooling, tests could not be conducted for the last three types of activities. For purposes of computing these chi-squares, data from persons indicating membership in more than one category were ignored to assure that no overlapping groups of respondents were being compared.

TABLE 51

Activities Engaged in by Advisory Council Members

Activity	Type of Respondent									
	Education Professional		Parent of an LD Child		Medical and Related Professional		College/ University Professor		Overall	
	HRC[a] (n=22)	LRC[b] (n=14)	HRC (n=6)	LRC (n=3)	HRC (n=9)	LRC (n=4)	HRC (n=10)	LRC (n=1)	HRC (n=47)	LRC (n=22)[c]
Participation in Training Sessions	14	8	4	0	4	1	4	0	26	9
Help Write or Review Proposals	15	6	3	1	2	0	5	0	25	7
Review & Comment on CSDC Activities	11	6	4	1	5	0	4	0	24	7
Observe the CSDC Program	15	6	2	0	2	0	5	0	24	6
Serve as Liaison Agent	10	6	2	2	5	0	4	0	21	8
Disseminate CSDC Information	12	4	2	1	2	1	3	0	19	6
Evaluate CSDC Progress	7	7	1	1	0	1	6	0	14	9
Seek Support for the CSDC	7	6	0	0	4	0	4	0	15	6
Receive Visitors & Explain Program	6	3	0	0	1	0	0	0	7	3
Work at CSDC	3	0	0	0	0	0	0	0	3	0
Other	4	1	1	0	2	0	2	1	8	3

[a] HRC = High Responder Council
[b] LRC = Low Responder Council
[c] N exceeds 65 since some respondents indicated they belonged in more than one category.

more education professionals engaged in this activity than expected. Members of high-responder and low-responder Councils (responses pooled across type of respondent) did not differ at the $p \leq .05$ level on any activity. Taken together, these tests show that the type of activities in which Advisory Council members engaged was the same no matter what their interest in learning disabilities (education professional, parent, etc.) or how active the Council was.

By comparison, during interviews CSDC staff indicated that Council members were heavily involved in reviewing and commenting on CSDC activities. In some cases, "reviews and comments" referred to technical consultations that provided a great deal of assistance in designing assessment and remedial programs and in other CSDC activities. Similarly, liaison with state and local education agencies and with community agencies was frequently cited by CSDC staff, as was dissemination of information. Seeking community support was cited by staff of two CSDCs as being important, and two mentioned the importance of Advisory Council members in relaying community attitudes and concerns to center personnel.

Staff from eight CSDCs commented directly on their satisfaction with Advisory Council support. Their remarks were decidedly favorable; staff from six of the eight CSDCs indicated that support being received was excellent and they had no suggestions for improvement. Two of these CSDCs cited Advisory Council members as being among the most effective CSDC supporters. In the two cases where no local Councils were available and a statewide Council was used, the staff members did not feel that the Council had been helpful.

Complaints were minimal: staff of one CSDC would have liked the Council to provide more information about parent and community opinions of the project. Staff of a second center indicated inadequate cooperation from a single member; another member of this Council was cited as particularly effective.

Advisory Council opinion of CSDC projects. The questionnaire asked Advisory Council members to indicate whether or not CSDCs had been accepted by the schools, the communities, the parents, and the students in the areas they served. Fifty-four of 69 responses in Table 52 indicate acceptance by the schools, by parents, and by the students served; 46 of 69 responses indicate community acceptance. Chi-square tests revealed no significant differences across types of respondents (p < .05).

TABLE 52

Community Acceptance of the CSDC as Seen by Advisory Council Members

Is the CSDC accepted...	TYPE OF RESPONDENT												Overall (n=69)[a]		
	Education Professional (n=36)			Parent of LD child (n=9)			Medical & Related Professional (n=13)			College/ University Professor (n=11)					
	Yes	No	NoR[b]	Yes	No	NoR	Yes	No	NoR	Yes	No	NoR	Yes	No	NoR
By the school?	29	4	3	7	1	1	9	1	3	9	0	2	54	6	9
By the community?	24	1	11	7	1	1	6	3	4	9	0	2	46	5	18
By the parents?	29	1	6	8	0	1	8	0	5	9	0	2	54	1	14
By students?	29	1	6	8	0	1	8	0	5	9	0	2	54	1	14

[a] N exceeds 65 since some respondents indicated they belonged in more than one category.

[b] No Response

Rating of CSDC components by Advisory Council members. Advisory Council members were asked to rate (in the categories "excellent," "satisfactory," or "needs improvement") center activities in each of eight components or to indicate that they were unable to rate the component. Table 53 shows the number of ratings for each component.

One hundred and eighty of the 560 obtained ratings (32%) were "excellent," 183 (33%) were "satisfactory," and 78 (14%) indicated that "improvement is needed." In 119 cases, 21% of the response possibilities, no rating was made. These figures provide a gross indication of the opinion of Advisory Council members about project components but do not indicate the relative quality of individual components. In order to compare the various components, a weighted sum of the ratings was computed for each component. This was done by multiplying the number of "excellent" ratings by 3, the number of "satisfactory" ratings by 2, and the number of "needs improvement" ratings by 1 and finding the sum of these values for each component.

TABLE 53

Ratings of CSDC Components by Advisory Council Members

Component	Number of Respondents Giving Each Rating				Weighted Sum
	Excellent	Satisfactory	Needs Improvement	No Response	
Assessment Procedures for LD	32	18	6	9	138
Educational Programming	33	16	7	9	138
Project Staffing	28	20	5	12	117
Dissemination Activities	18	29	4	14	116
Advisory Council Involvement	14	23	16	12	104
Replication Activities	20	19	5	21	103
Communication with Community Agencies	10	30	10	15	100
Parental Involvement	12	17	20	16	90
TOTAL	180	183	78	119	

It is interesting to note that the three highest ratings went to components that might be considered "internal" to project operations (assessment procedures, educational programming, and project staffing) while the lowest ratings went to those components that involved working with people outside of the CSDC, with ratings of parent involvement the lowest. Council members also rated their own involvement rather low (fifth among eight components).

Weighted sums were also computed for each type of respondent on each component. Table 54 shows the intercorrelations among these ratings. The ratings given by the three professional groups correlated highly with one another, as did the ratings given by parents and education professionals. The correlation of parents' ratings with either the Medical and Related Professional or the College/University Professors are much lower.

TABLE 54

Intercorrelations of Weighted Sums, Showing Agreement of Program Component Ratings by Each Type of Respondent

	Education Professionals (n=35)[a]	Parents (n=6)	Medical & Related Professionals (n=11)	College/ University Professors (n=10)
Education Professionals		0.62	0.56	0.63
Parents			- 0.14	0.19
Medical & Related Professionals				0.69
College/ University Professors				

[a] Total Ns are less than 65 because persons who indicated membership in more than one category were excluded from this analysis.

A separate question asked Advisory Council members to indicate if they thought Council involvement was adequate. The responses to this question were compared with the questionnaire item asking members to rate the quality of CSDC components, as a rough indication of consistency of response (Table 55). The responses in the (*) cells are taken to be consistent; thus 49 of the 65 respondents (75%) responded in a clearly consistent manner. (Although there was space on the questionnaire to indicate that Council members felt their involvement was too extensive, no one chose this alternative.)

In summary, it appears that CSDCs had not utilized Advisory Councils to the extent expected under the federal guidelines, and parents were only minimally represented in Council membership. In those cases where the centers had established Councils, and where they were involved in the centers' activities, Council members generally rated project components highly.

TABLE 55

Consistency of Response on Two Items Related to Advisory Council Participation

Rating of Adequacy of Participation	Ratings of Advisory Council Involvement			
	Excellent	Satisfactory	Needs Improvement	No Response Can't Say
Involvement Adequate	13*	20*	5	2
Involvement Insufficient	1	2	8*	3
No Response	0	0	3	8*

*Indicates consistent responses on the two items

IV. DISCUSSION AND CONCLUSIONS

At the outset of this study it was made clear by the RFP, by the consultants, and by staff members of the Bureau of Education for the Handicapped that the CSDCs in their second year of contract funding (a) were quite diverse in scope and purposes, and (b) could not easily be evaluated against uniform criteria. It was agreed that the study was essentially exploratory in nature. The cross-program analysis in the Results section, together with the appendix, which discusses CSDCs in terms of their unique objectives, reflect these factors.

Two prime questions have been formulated to deal with the key issues of services to children and the stimulation efforts of the centers. They are:

> To what extent are children served by the CSDCs diagnosed as learning disabled, according to the federal definition; and what is the relationship of diagnosis to the provision of educational services?
>
> To what extent have CSDCs stimulated state and local services to learning disabled children?

Answers to these questions are not clear-cut, but the objective data presented in the Results section can be discussed here both in terms of cross-program findings and in terms of the individual center case descriptions.

A. Services to Students

The outstanding feature of CSDC activities related to the provision of diagnostic and prescriptive services to learning disabled students was the diversity of those activities across centers. Variations were found in who was responsible for the referral and screening process (the CSDC or the local districts), what kinds of services were provided (direct or indirect), who provided those services (CSDC staff members or local teachers and specialists), and where the services were delivered (at the CSDC, in a school resource room, or in the regular classroom). During their visits to the centers, AIR staff members found that variations along these dimensions quite often occurred within individual projects as well, even in those centers implementing one model of service and having well-defined and standardized procedures.

In view of these types of differences, and quite possibly as a result of them, the student records maintained by the CSDCs did not always contain all the information that had been collected for individual students. Sometimes these data were in cumulative records at the schools and were inaccessible to this study. Site visitors also found that in smaller schools and districts much of the relevant information about a student (e.g., family environment and educational history) was well-known to teachers and staff members and influenced decisions made about the child although it was not always written in the records. The impact of these contextual and operational variables on the completeness and quality of the students' records examined in this study could not be assessed.

The discussion and conclusions which follow are based on objective data in student records, project documents, and the interviews conducted with CSDC staff.

A major aspect of the CSDC functions are the general procedures for identifying or assessing learning disabilities in accordance with the federal definition.

Examination of the 133 student records in the sample showed that approximately 50 students had been tested in each of the various exclusionary categories. From 12% to 31% of those tested were found to have impairments which were primarily due to vision or hearing problems, motor or emotional disorders, or environmental or educational disadvantage.

Ninety-five student records showed intelligence testing had taken place, with scores widely distributed, indicating that in most cases an effort had been made to identify mental deficiency as a contributing factor.

Academic achievement tests were the most consistently administered of the various types of measures and were referred to in 106 of the student records. These tests were most often administered individually. In a large proportion of the cases, about 60% to 70%, discrepancies of at least one year were found in performance within the various subtests as compared to actual grade placement.

The records show that not all of the students receiving services had been tested or assessed in all of the exclusionary categories in the definition. Of those tested, some students were found to have other impairments and thus on purely technical grounds could have been classified as ineligible for the project if the other impairment was deemed primary. Information obtained during the interviews indicated that the federal definition was not very helpful and that the focus of the CSDCs' concern was the desire to identify and remediate a child's specific learning problem (e.g., letter reversals, word calling, auditory discrimination, perseveration) rather than to classify the learning disability in medical terms. Discussions with CSDC staff tended not to focus on minimal brain dysfunction, developmental aphasia, and similar terms which appear in the definition, nor was there significant discussion about exclusionary categories, the meaning of environmental disadvantage, and the like. Testing of students was less often done in routine fashion, where all entering students would receive a similar battery of measures for exclusionary and diagnostic purposes, than individually and selectively, where measures would be chosen which related closely to the functional problems reported by the referring individual(s).

As far as exclusionary factors were concerned, it was a recurring theme in the interviews that the learning disabled child is likely to have a number of other handicaps. For example, environmental disadvantage was the norm in some of the areas visited. Often the centers referred students with problems such as poor vision or the need for family counseling to other appropriate agencies. However, CSDC staff members still felt an obligation as educators to deal with the child's learning disabilities, even though they co-existed with other handicaps.

There was considerable variability in the number of students whose records showed diagnostic testing in processing, academic, and articulatory skills. Among those who were diagnostically tested in given skills areas, a high proportion were found to have deficits. As an example, reading was tested for 65% of the students, and 86% of those tested had deficits; visual perception was tested for 56% of the students, and deficiencies were found in 69% of those students. It would seem that diagnostic tests were being selectively administered in skills areas where there was some reason to believe that deficits existed.

Information obtained from CSDC staff members during the interviews indicated that teachers often provided information about the specific processing areas in which students were having difficulties at the time of referral. Diagnostic testing was then focused on those areas and the student might not receive an entire battery of tests. This interview information confirms, and to some extent clarifies, the lack of test results on the records.

Conclusion. Testing of students occurred in highly individualized patterns. These patterns tended to confirm and provide more information about learning problems which had been identified in a general way at the time of referral. The focus of testing, therefore, was not primarily on whether an individual child fell into an exclusionary category, but rather was on the particular processing, academic, or articulatory deficits tentatively identified for that child.

When prescriptive services provided by the CSDCs were analyzed, one of the most striking aspects of those centers which were emphasizing direct student services was their child-centered orientation. In many interviews, staff members exhibited an awareness of the provisions of the new Public Law 94-142. The centers' educational practices reflected an implementation of a number of the concepts embodied in that legislation, particularly the individualization of educational programming, the provision of appropriate services in the least restrictive environment, and the use of due process procedures relative to student placement in a special education program.

Insofar as was evidenced in the sample of 133 student records, individualized plans were prepared for 85% of the students, and 90% of these plans gave specific instructions for remediation. Case study descriptions point out that a number of students were being served without being removed from the regular classroom, while others were being removed only for relatively short spans of time or for part days, during the CSDC intervention. At each level of decision-making (i.e., referral, assessment, and educational programming of students), there was a strong tendency toward the use of interdisciplinary teams in which at least one specialist was involved. Parents were involved in decision-making with these teams roughly half of the time. As mentioned in the case studies, most of the centers had formal procedures for notifying and obtaining permission from parents at the time student services were initiated. Typically, written approval was requested of parents for (a) screening or diagnostic testing of the child and (b) entry of the child into the project. Contact with parents tended to be less systematic after that point. Although there is a consistent adherence to the legal requirements of due process, the parent interview data reported in this volume indicate that there is a need for greater parent awareness and involvement in the activities of the centers.

Conclusion. Prescriptive services being delivered to students tended to emphasize individualized programming and the mainstreaming of students into the regular curriculum. Decisions about the student's educational program tended to be made by multidisciplinary teams, with parents involved about half of the time. However, many parents seemed to lack a specific awareness of their child's learning problem, the educational goals set for the child, or the instructional activities of the CSDC.

The outcomes of CSDC efforts to measure student change or gain were difficult to quantify and aggregate across centers. This difficulty stemmed from the sharp differences among centers vis a vis their evaluation standards. Three CSDCs were making serious efforts to measure outcomes systematically, with control groups, pre/post testing, and a sensitivity to research considerations. Other centers collected and reported data that were unclear in substance and questionable in the way they were calculated and reported. It is beyond the scope of this exploratory study (and quite impossible, given the variations extant in the CSDCs) to make emphatic, empirically based statements about student outcomes. Nevertheless, anecdotal data in the student records suggested that teachers who had taught the student before and after CSDC intervention generally credited the CSDC with a positive effect on the child. The limited achievement data found in the student records tended to reflect relative gains, that is, students might have been doing better than before entry to the project even though not yet functioning at "normal" levels. Parents' remarks tended to support the notion that positive effects had taken place.

The records reveal that some centers took careful baseline measures of student performance and actions in the classroom in order to learn something about the nature and extent of the students' social/behavioral adjustment, but did not follow up with equally thorough observational measures after the intervention. Further, comparisons over six months or more might have suggested whether the behavior modification processes used in many of the CSDCs had lasting effects. The case studies include data from one center that did such pre/post checking of behaviors; unfortunately, the data were not analyzed in a clearly interpretable way.

Conclusion. The degree to which there had been student gain across the centers was unclear, due largely to inadequate evaluation procedures and unclear reporting of student change data. Anecdotal remarks of teachers and parents tended to indicate favorable project effects on students; achievement data were not as convincing from center to center. Behavioral observation measures were not capitalized on as indicators of change to the extent they might have been.

In answering the first prime question, then, it would appear that most CSDCs had made good progress toward devising child-centered learning disabilities programs which emphasized individualized diagnosis and programming.

For a number of reasons, ranging from inadequate record keeping to decisions made on an individual child basis, the student records did not show across-the-board compliance with the federal learning disabilities definition. On the whole, however, diagnostic/prescriptive procedures appeared to be appropriate for the individual child and allowed the centers to identify and remediate specific learning problems. Outcome data were not sufficiently consistent and clear to allow meaningful interpretations of student growth, though on an anecdotal basis it appeared that most students were benefiting from the CSDC's intervention.

B. Other Program Goals

The federal guidelines for the Learning Disabilities Program have required the CSDCs to carry out a wide variety of activities, as indicated by the general questions this study has explored. The size of the federal program and the amount of funding that was provided to any one center are quite small when compared with other federally funded programs such as

Bilingual Education. In view of the small number of CSDC staff members, the limited budgets, and the difficulties inherent in (a) providing new services and (b) incorporating those services within existing educational systems, it appears that the impact of the Title VI-G funds has been felt far beyond what might be expected. This judgment is based on the impressions of all the AIR site visitors, the reported priority accorded the CSDCs at the local level, and the extensiveness of the activities described in the case studies.

Those projects which appeared likely to have continued support at the state and local levels were found to share some common strategies which helped to alleviate the gap between their means and goals. One of these strategies involved capitalizing on the professional experience and skills of a limited number of staff members by distributing their services from a centralized location throughout local school districts. Staff members of most of the CSDCs functioned on such an itinerant or resource basis, and nearly every school or classroom served had the potential to become a kind of "demonstration center." Staff members in 13 of the centers went into the field to provide such technical assistance.

Several CSDCs were attempting to multiply the impact of their limited staffs by concentrating on teacher training. Those people trained by the center in turn were expected (and sometimes required) to share that training with other special education and regular classroom teachers. In this way, projects hoped to serve a large number of students indirectly, as well as influence teachers and administrators who had not been in direct contact with the CSDC.

Conclusion. In addition to providing direct services, most CSDCs were extending project services into the schools and were relying on the "multiplier effect" indirectly to reach large numbers of students, teachers, and administrators. Though difficult to assess, it seems likely that the strategies used by the centers were impacting on a larger population than was apparent if measured only by the number of students served, the number of teachers trained, or the size of the CSDC staff itself.

The average size of the budgets for the 17 CSDCs in 1975-76 was slightly over $200,000; however, five of the centers operated on budgets of less than $100,000. None of the projects existed on Title VI-G funding alone. These operating funds were clearly low in terms of the scope of services expected of the projects. Based on their previous experience in evaluating other federal programs such as Right to Read and Bilingual Education, the AIR site visitors shared the general impression that most CSDCs were accomplishing far more than their levels of BEH funding would indicate. This was possible, in nearly every case, through an effective mobilization of other resources from state and local agencies. Some of these resources are described in the case studies; they ranged from staff salaries to facilities and equipment to the special materials required for learning disabilities assessment and educational programming. In assessing the impact of the Learning Disabilities Program, therefore, it is necessary to keep in mind that much of the support for the CSDCs came from sources other than the Bureau of Education for the Handicapped. This was especially true for the higher cost centers. The local investment can be seen as one measure of support for the project, as well as an indication that it was addressing a real need in the schools.

Conclusion. The CSDCs cannot be considered as primarily federal demonstration projects; they were, in fact, supported in large degree by local, county, and state education agencies and it is doubtful that they could have addressed all of the mandates of the federal legislation without this support.

It was apparent, from the interview data collected and the impressions of all of the site visitors, that CSDC projects were being carried out by teachers and other specialists with appropriate qualifications and experience in the field of special education. Many of these educators had worked within the local schools or the state departments of education and were sensitive to the program priorities, needs, and attitudes of their service area. The knowledge and experience of staff members appeared to be a major strength of the projects. Another positive factor in gaining local acceptance and support was that the orientation of these staff members was primarily that of educators--not clinicians--and they viewed learning disabilities as an educational rather than a medical problem. Although many of the CSDCs reported lack of awareness or knowledge as an obstacle to replication, those districts which had been exposed to CSDC services were reported to be generally supportive. As is evident from the uniqueness of the centers and the variations in services described in the case studies, the CSDCs were adapting their approaches to local educational needs. An example of this adaption was the preponderance of projects serving rural areas and focusing on the training of special teachers to work on an itinerant basis in small or isolated schools. Information collected during the interviews and reported in the case studies supports the statement that staff members were sensitive to local problems of acceptance and understanding and were working to overcome them.

By contrast, only a small number of projects were attempting to answer fundamental questions about learning disabilities through well-designed research studies. Although a few CSDCs had incorporated research design components in their overall project models, there was a general lack of controlled studies and adequate evaluation which would allow projects to prove their effectiveness in remediating problems of the learning disabled child. A synthesis of the large amount of information already collected by the centers could provide a starting point for research which would address current issues in the field of learning disabilities.

Conclusion. One of the observed strengths of the program was the presence on CSDC staffs of appropriately qualified educators who were tailoring the activities of their centers to meet local needs. This approach seems particularly effective from the standpoint of gaining local acceptance for the projects. At the same time, relatively few of the projects were addressing fundamental research questions, a focus which would serve the field of learning disabilities as a whole and further expand the impact of the program.

One requirement of the Learning Disabilities Program which was being met in varying degrees by the CSDCs was that of parent involvement. Typically, the centers did make an effort to contact parents to obtain permission for student testing or entry into the project. Although most of the centers had made attempts to reach parents through meetings, seminars, and open houses, in many cases project directors reported that attendance was poor. There was little evidence of efforts to involve parents in the planning or the operation of the projects, although a small number of projects which had initiated parent training on either a formal or informal basis reported good acceptance of these efforts.

On the one hand, staff members often mentioned a lack of parent interest in activities offered by the project. On the other hand, during interviews with AIR site visitors many parents expressed a strong desire to know more about their children's programs and their progress, and more than 80% of those interviewed were supportive of the CSDC and what it had accomplished for their children. A number of parents indicated that before the project began, the schools had been unhelpful or unsympathetic in meeting the needs of their children.

Because of the confidentiality of the parent interviews, it was not possible for the AIR site visitors to explore with CSDC staff members the apparent contradiction between the centers' perception of parent interest and the statements made by the parents. There is a possibility that CSDCs measured parent interest in terms of their willingness to participate in planned activities, but that parent interest and active involvement were quite different matters from the parents' point of view.

Conclusion. Parents were not as aware of the CSDC projects as they would like to have been; however, it had been difficult for the projects to get them actively involved. Part of this appeared to be attributable to barriers between the home and the school which existed before the projects began.

Another requirement of the legislation which had been implemented in varying degrees is that of Advisory Council participation. Through interviews it was established that only 11 of the CSDCs had appointed such Councils for the 1975-76 school year. Three of the remaining centers relied instead on individual consultants for advice and guidance. Two of the CSDCs, part of a state-wide network of seven centers, had an Advisory Council which served the entire state and which did not appear to be closely involved in local project activities. One CSDC had been unable to recruit persons who were willing to serve on a Council. Staff members at those CSDCs which made active use of their Councils reported that the members had been a valuable link between the project and the community. Questionnaire data collected from Council members indicated that where they were involved in center activities, they found these activities to be worthwhile. Also, involved Council members tended to rate project components highly.

Conclusion. While Advisory Councils had been a valuable resource to the CSDCs in several locations, some of the centers had found that the use of individual consultants was more valuable and timely. Where Councils had been actively involved in project activities, both the CSDC staff members and the Council members expressed satisfaction with this involvement.

Dissemination activities were varied and extensive across all of the CSDCs. There was general acknowledgement of the importance of creating awareness and knowledge about learning disabilities among educators, who constituted the main target group. Much dissemination occurred informally during staff interactions with educators and community members as part of the daily project activities. In addition, there was considerable voluntary contribution (outside of their working hours) of time and energy by the staff members. It was evident to the AIR site visitors that without this contribution CSDC dissemination efforts would have been greatly diminished. A majority of the CSDC staff members expressed hope that dissemination activities might be expanded as other project demands lessened. There was a perceived need for better communication systems and audiovisual and printed materials.

One area mentioned by several of the CSDCs in which additional support would be especially valuable was that of materials dissemination. In order to meet the gap in what is commercially available, a variety of materials had been locally developed, including assessment instruments, remedial materials, teacher training modules, handbooks and guides for setting up learning disabilities programs, and parent and peer tutoring programs. Several CSDCs expressed the desire for some mechanism by which such products could be disseminated to other projects and the educational community in general, although few of these products had been evaluated in a systematic way.

Conclusion. CSDC staff members considered dissemination an important activity. However, funds were seldom adequate for this purpose and dissemination was often dependent on the personal, unpaid efforts of staff members. There was an expressed need for some type of overall dissemination network for locally developed materials.

Closely allied to dissemination is replication, and it proved difficult in many cases to make a distinction between the two activities. As defined in this study, full replication of the CSDC services had happened only in about half of the CSDCs. Project directors of four centers in their second year of operation indicated that it was too early in the project to establish replication sites. Three directors reported that other regions or districts were not yet ready for a program. The projects which had pursued replication as a major objective and which had fully implemented projects elsewhere were typically centers which had been in existence for at least three years. In view of the experiences of the CSDCs and of the general literature on program diffusion, it would appear that this requirement of the Learning Disabilities Program may well be premature.

Conclusion. Replication had not occurred in several of the CSDCs, particularly those which had been in operation for only two years; there were indications that this objective is best attainable after a project has been in existence for three years or more.

In answering the second prime question, it would appear that the CSDCs had made serious efforts to carry out their mandate to stimulate other state and local services to learning disabled children. This is especially true when one bears in mind the many and complex activities the limited staffs of the centers were expected to carry out. However, not all of the impact of the centers can be attributed to the federal funding since some of the projects had existed prior to the initiation of the program, and almost all of the centers had received a number of resources from state and/or local agencies. Those projects with the greatest stability were in states where the CSDCs had strong working relationships and organizational ties with the state education agency. State and district administrators tended to see the CSDCs as filling a real need in meeting state requirements for services to children with special needs.

At the federal level, all 17 CSDCs mentioned the value of the technical assistance received from NaLDAP and were highly supportive of its prompt attention to requests. On the other hand, many of the centers expressed a need and desire for closer coordination with Bureau of Education for the Handicapped personnel. Funding uncertainties and delays, the lack of timely information about the Bureau of Education for the Handicapped policies, and lack of acknowledgement of reports and feedback to inquiries from the field had hindered both the planning and operation of several of the projects. As reflected in the case studies, most of the projects felt they had attained their objectives, to the limit of the time and resources available to them; yet they felt that better communication between BEH and the CSDCs would strengthen their efforts and lead to a fuller realization of the long-range goals of the Learning Disabilities Program.

V. RECOMMENDATIONS

A. Student Services

- There are variations among the centers in terms of the standards used in implementing services; it is recommended that CSDC procedures for referral, assessment, and prescription be examined in detail, across projects, with a view to determining consensus criteria which can become guidelines for the selection of tests, interpretation of results, and levels of reasonable change that can indicate program benefits.

- The current learning disabilities definition places an emphasis on categorical critera for exclusion/inclusion of students that is not particularly useful in the field, especially in the face of trends toward noncategorical full services; accordingly, it is recommended that the definition be reviewed and made more workable and meaningful.

- The types of records maintained relative to student services do not allow a clear determination of the decisions involved in interpreting test results and translating them into related educational plans; it is recommended that CSDCs be encouraged to implement systematic procedures for measuring student gain in each area in which intervention is undertaken.

- Clear guidelines do not exist as to what information should be included in CSDC reports to the Bureau of Education for the Handicapped and what constitutes satisfactory data; it is recommended that guidelines be formulated that do not restrict the centers' choices in testing and programming and that are flexible enough to allow categorical and noncategorical approaches. When needed, technical help should be made available to the centers to assure appropriate evaluation designs.

B. Other Program Goals

- A strength of the Learning Disabilities Program is the extent to which CSDCs have been tailored to meet local needs; it is recommended that this focus be continued within the Bureau's overall programmatic goals.

- The benefits of parent involvement in the planning and operation of CSDC activities have not been demonstrated; it is recommended that BEH more closely monitor CSDC compliance with this requirement and evaluate the effects of parent participation in the future.
- Advisory Council participation in CSDC activities has been a valuable resource for some centers but has been difficult to implement for others; it is recommended that this requirement be left to local option.
- There are insufficient funds at current budget levels to support widespread dissemination activities; it is recommended that a BEH-sponsored network be developed for sharing of information and products among the centers and with the public at large.
- Successful replication is not likely to occur for those projects which have been in operation for less than three years; it is recommended that this requirement be modified to reflect the experience base of the CSDC.
- State and local support for the CSDC are critical factors in project continuation; it is recommended that evidence of such support be required for both initial and follow-on project funding.
- Delays or changes in project funding have serious implications for CSDC planning, staffing, and program implementation; it is recommended that procedures be set up within the Bureau for prompt notification of funding, that changes in decisions about funding be avoided, and that all notification of such decisions to the CSDCs be communicated in writing.
- CSDCs express a strong need for better communication with the Bureau; it is recommended that procedures be set up for prompt response to inquiries and that written notification of receipt of reports and other required documents be sent to the CSDCs.

- At the present time, basic issues in the field of learning disabilities are not being addressed by most CSDCs; it is recommended that the Bureau of Education for the Handicapped encourage applied research as well as studies which seek to evaluate the comparative effectiveness of alternative instructional strategies.
- Present federal guidelines require too many diverse activities of the CSDCs at current funding levels; in lieu of increased funding, it is recommended that the CSDCs be encouraged to establish priorities which reflect local needs rather than trying to meet all of the broad program goals.

VI. ADDENDUM

Speculations and Impressions

BEH has invited the authors of this report to summarize their impressions of issues and operational concerns which they encountered during their visits to the 17 CSDCs. This addendum presents those impressions which were shared by all the site visitors, each of whom visited a number of states and talked to many project directors, teachers, administrators, parents, and others concerned with improving services for the learning disabled child. While the information here is less objective than that in the main report and the case studies, AIR staff members nevertheless feel it has validity and adds an important dimension to the study and the understanding of the Learning Disabilities Program.

1. The total impact of the monies spent to date in the Learning Disabilities Program is far reaching and may never be fully assessed. In the few years that the program has been in operation, it has touched upon the lives of hundreds of children with learning problems as well as their parents. It has resulted in specialized training for many educators, and there are signs that it marks the beginning of a change in the field of special education. Several persons mentioned the prospect that all special education, and perhaps ultimately education in general, would someday adopt the model developed to serve learning disabled students, that is, looking at each child as an individual with specific learning styles, strengths, and weaknesses and teaching that child accordingly.

   The program has also spawned the development of many materials, including specialized curricula, assessment instruments, teacher training manuals, student progress checklists, parent training materials, and procedural guides for establishing learning disabilities programs. It has stimulated LEAs, SEAs, and other educational agencies to recognize the problems of learning disabled children and to begin to incorporate services to such children in their overall educational plans.

2. Probably the single most impressive feature of all the CSDCs to the site visitors was the quality and dedication of their staff members. Despite the local influences that affected the relative effectiveness of the centers, almost uniformly the projects had creative, dedicated, intelligent, and persistent staff members who worked overtime on a regular basis to meet all the demands of their jobs.

3. Site visitors were also impressed with the CSDCs' satisfaction with the technical assistance being provided by NaLDAP. Centers were particularly impressed that the NaLDAP representatives, who were primarily communicators rather than special educators, could meet project needs so well. NaLDAP's responsiveness to all kinds of questions, including requests for materials and tests and information about BEH, was almost universally applauded.

4. Dissemination of materials developed locally to fill the gap in what is commercially available needs to be enhanced. NaLDAP has facilitated awareness that the materials exist, and most of the centers have done what they can to make the materials available to other educators. But neither have the money to reproduce in quantity what has been developed. There is a genuine desire on the part of project staff to share materials and ideas developed by their colleagues.

5. During discussions with CSDC staff about replication, most center directors said that the scope of their replication activities had been limited by lack of funds and staff time. Although some centers have successfully replicated their models, many are still in the first phases of the replication process. Perhaps, for the first few years of center funding, replication should be defined as diffusion of services. Then, after the model has been established and operating successfully for at least one or two years, the CSDC staff can focus on replication as it is now defined, i.e., technical assistance in program development. To expect CSDC staff to develop a sound model of delivery of services to learning disabled students and also to provide technical assistance to other sites within a three-year period is not realistic. There are indications

that BEH should rethink its position on replication as a required component for all CSDCs, especially for those which are receiving initial funding.

6. It is another impression of the AIR site visitors that the components which a CSDC is required to implement should be related to the age of the project. Project funding should come in phases, with objectives for each phase focused on one aspect of program development at a time. For instance, Phase I might be preparatory (identifying staff training needs, identifying the target population, collecting materials, working with classroom teachers and the community, etc.). Phase II might involve refining the assessment and diagnostic/prescriptive services. Phase III might be dissemination of the project, and Phase IV might be replication, both the expansion of services and the training of other people within the state and from other states. Provisions could be made for overlap between phases.

   Another stratagem BEH might take for improving the replication process is to award grants to key staff members at CSDCs which are firmly established, enabling these experienced individuals to travel to states without learning disabilities programs to help them start their project. Or grants might be provided to key people from SEAs and LEAs in unserved states for travel to established CSDCs for the purpose of observation and training.

7. Finally, AIR site visitors encountered an apparent contrast between the BEH and CSDC interpretations of how learning disabled children were to be identified and served. It appeared that BEH guidelines seemed to focus on the exclusionary categories to ensure that no student was in a project who did not clearly belong there, according to test data. Center staff, on the other hand, looked at the target populations more flexibly and were primarily interested in the identification/assessment process as a way of pinpointing more specifically the student's problem and educational needs. Thus, if a referred student also happened to be educationally disadvantaged or sensory handicapped or had some other disablement, it still was of concern to CSDC staff that the

child's learning disability be addressed. In arriving at these judgments a number of informal measures were being used, including past school records and reports of prior special education services, as well as formal measures.

Learning disabilities teachers did not ask, "What caused the problem?" or "Should the student be here?" so much as "What isn't this student able to do and how best can it be taught?" AIR concurs with this point of view--i.e., pro-forma testing for exclusionary categories is not as helpful as the specification of skill deficits which the CSDCs seem to be emphasizing.

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